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Mitigating Negative Externalities Affecting Access and Equity of Education in Low-Resource Countries: A Study Exploring Social Marketing as a Potential Strategy for Planning School Food Programs in Malawi

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MITIGATING NEGATIVE EXTERNALITIES AFFECTING ACCESS AND EQUITY OF EDUCATION IN LOW-RESOURCE COUNTRIES: A STUDY EXPLORING SOCIAL MARKETING AS A POTENTIAL STRATEGY FOR PLANNING SCHOOL FOOD PROGRAMS IN MALAWI

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DEDICATION

To God Almighty and the loving memory of my selfless amazing Dad Mathias Linus Magreta.

ABSTRACT

MITIGATING NEGATIVE EXTERNALITIES AFFECTING ACCESS AND EQUITY OF EDUCATION IN LOW-RESOURCE COUNTRIES: A STUDY EXPLORING SOCIAL MARKETING AS A POTENTIAL STRATEGY FOR PLANNING SCHOOL FOOD PROGRAMS IN MALAWI

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School feeding programs enhance the efficiency of the education system by improving enrollment, reducing dropouts and increasing perseverance. They also have the potential to reach the poor, directly making them an effective social safety net. In many low-resource countries, school feeding programs are designed to protect children from the effects of hunger. Unfortunately, the continuity of such programs is threatened by over-reliance on external funding. Given the patterns of withdrawal of external support, countries that rely on donor funds

to implement such programs need to develop plans that will move them from external to localized support. It is well documented that programs that involve community members are self-sustaining. Regrettably, even though community members are involved in school feeding programs in Malawi, their participation is restricted to food storage and preparation and doesn't include decision making. Thus the transition plan for Malawi has to deliberately involve community members and influence them to take ownership of the school feeding programs.

This dissertation explored the use of Social Marketing, a strategy for influencing behavior change that applies traditional marketing techniques to persuade a target audience to adopt, adapt, maintain or reject a behavior for the benefit of individuals, groups, or society as a whole to plan school food programs in Malawian primary schools. Using focus groups and individual interview techniques, I carried out a qualitative study at a primary school in Malawi where the community has initiated a school feeding program with the aim of understanding the barriers and benefits of supporting such an initiative from the community members' perspective. The results show that the cost of producing food, particularly the use of chemical fertilizer, is the main barrier whilst ensuring that all children regardless of social-economic status have access to a meal at school is the drive behind this initiative. The Social Marketing campaign therefore focuses on promoting the use of eco-san toilets whose output is humanure in this school community so as to minimize the cost of producing food to ensure sustainability of this initiative.

Key words: Social Marketing, School Feeding, Community Participation, Sustainability, Low-Resource Country.

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CHAPTER 1

INTRODUCTION

School feeding programs enhance the efficiency of the education system by improving enrollment, reducing dropouts, and increasing perseverance. They also have the potential to reach the poor, thereby directly making such programs effective social safety nets (Bundy, Burbano & Grosh, 2009). However, many school feeding programs in low-resource countries are externally supported through donors. Sadly, donors are now pushing host governments to develop exit strategies (transition from external to localized support) of such programs. Thus, in many low-resource countries, the continuity of school feeding programs is threatened. Malawi is one such country that is currently implementing school feeding programs with the help from donors such as the World Food Program (WFP). Just recently, WFP suspended its feeding program in 480 of the 662 primary schools that it supports in Malawi due to delayed funding, consequently affecting 508,000 pupils (WFP, 2010). Yet, reports from a National School Health and Nutrition (SHN) baseline survey conducted in 2006 in Malawi had indicated that 70% of primary school children go to school without taking breakfast (SHN baseline report, 2006). If Malawi were to achieve the Millennium Development Goals 1 and 2 (Eradicate extreme poverty and hunger; Achieve universal primary education) by the target year 2015, then a deliberate effort to sustain school feeding programs as one way of ensuring that children have access to at least a meal ought to be promoted. Feeding children in school can also contribute towards efforts of making primary education universal.

School feeding programs in many low-resource countries specifically target poor children. The logic behind this is that these programs are seen as an incentive to

encourage those living in poverty to send their children to school; the children will then receive an education that will help them in the future to break loose of the poverty trap (Bundy, Burbano & Grosh, 2009). Unfortunately, over-reliance on external funding makes these programs unsustainable. The central question, therefore, that any program aimed at ensuring the sustainability of school feeding programs should focus on is: ***How can schools be guaranteed a continuous supply of nutritionally balanced food for the feeding programs?*** Given the patterns of the withdrawal of external support, low-resource countries that rely heavily on donor funds to implement school feeding programs need to develop plans that will move them from external to localized support. One way of achieving this goal of moving from external to localized support is through community involvement.

Even though community members are currently involved in school feeding programs in Malawi, the focus country, their participation is restricted to food storage and preparation; rarely does it include decision making. This means the transition plan for Malawi has to deliberately involve community members and influence them to take ownership of the school feeding programs. Studies indicate that involving community members in programs greatly increases the programs' chances to be successful and sustainable (Reed & Dougill, 2002; Cohen, Scribner & Farley, 2000). Social Marketing, a strategy for influencing behavior change, applies traditional marketing techniques (coming up with a *product*, *price*, *place* and *promotion* strategies) to persuade a target audience to adopt, adapt, maintain or reject a behavior for the benefit of individuals, groups, or society as a whole. However, literature on programs that have used social marketing as a planning tool to promote community participation in school food

programs in low-resource countries is missing. This could be attributed to minimal use of

the strategy in the field of education. Nonetheless, social marketing is widely used in

public health with demonstrated success. This leads to the central research focus: ***using***

social marketing strategies to design a campaign that will promote community

participation in school food programs to ensure sustainability. Below is the graphic

representation of the conceptual framework.

| Social marketing | → | Community involvement | → | Sustainable programs |

Figure 1.1: Conceptual Framework

Overview of school feeding program in Malawi

The Ministry of Education in Malawi introduced school feeding as a component

of a broader School Health and Nutrition Program seeing that it is one way of mitigating

negative external factors affecting quality of education. The school feeding program

began in 1999 as a two year pilot targeting 23,000 pupils in 24 schools in Dedza district

(Malawi Standardized Baseline Survey, 2007). In 2000, an additional 37 schools were

added in the neighboring districts of Salima and Ntcheu reaching 31,500 pupils (Malawi

Standardized Baseline Survey, 2007). By 2008, there were 930,171 pupils benefiting

from the program in 948 primary schools (Ministry of Education Malawi unofficial

report, 2010). The school feeding program in Malawi is supported by World Food

Program (WFP), United Nations Children's Fund (UNICEF), German society for

Technical Cooperation (GTZ), City Hope, Evangelical Lutheran Church and Mary's

Meal. Pupils in the targeted schools receive a daily mid-morning porridge of corn soya blend (likuni phala) each school day. The community members prepare the porridge and provide security when the food is in storage. In schools where the program is supported by WFP, girls and double orphaned boys who attend 80% of the school days each month receive a take home ration comprised of 12.5 kg of maize as an incentive to stay in school (Ministry of Education Malawi unofficial report, 2010).

Recently in its 2011-2012 official government budget, Ministry of Education planned to roll-out the feeding program to all the public primary schools in Malawi. It is yet to be seen if this plan will be implemented.

Biographical statement

My interest in school food programs is due to my connection to nutrition. For many years, I was a Home Economics teacher and have taught the subject both at secondary school and teacher training college in Malawi. Even though I do not teach the subject anymore, I see my pursuing this issue as an opportunity to re-connect to my nutrition background. I also remember my early education days when there were times that I went to school hungry not necessarily because there was no food at home but for the reason that I was late for school and had to skip meals. I vividly remember my struggles trying to stay focused and I can identify with the struggles those children who go to school without taking breakfast face. My personal interest in this study may bring certain biases even though I will try to ensure objectivity; my assumptions might influence the way I interpret data collected. I enter this study with a conviction that

school food programs are critical for achieving educational goals and that they must be continued.

Definition of terms

This study explored the use of social marketing as a strategy for planning school food programs in Malawi. Malawi is considered a low-resource country due to its low level of material well-being. A considerable number of people live on less than one dollar a day. Specifically, the study focused on using social marketing to enhance the interest that community members at Malembe primary school in Lilongwe Rural West educational district have in ensuring that their children have access to a meal at school. In this study, social marketing is defined as a process that applies traditional marketing techniques (coming up with a *product*, *price*, *place* and *promotion* strategies) to influence a target audience to adopt, adapt, maintain or reject a behavior for the benefit of individuals, groups, or society as a whole. The behavior targeted, as will be seen in the discussion of findings sections, is the use of eco-san latrines whose output is humanure, a viable replacement for chemical fertilizer. The use of chemical fertilizer was perceived by many participants as the main barrier to sustaining the initiative of feeding school children started by community members at the school. Sustainability as used in this study means the continuation of the school feeding program at Malembe primary school. Community in this study is interpreted as a product of shared space (children access same school, come from same villages) and a process of collective action.

School feeding is defined as the provision of food to school children. At Malembe primary school, the focus of this study, the food in question is a mid-morning porridge made from corn/maize soya blend, locally known as Likuni phala.

Purpose and significance of the Research

The purpose of the study was to inform the design of a social marketing campaign aimed at eliciting community participation in school feeding programs in Malawi, thereby contributing to the efforts to make such programs sustainable. This was done by following social marketing principles which are to first start with assessing the barriers and benefits of a behavior before designing the campaign; thereafter, investigating how the importance of such a behavior can be framed and communicated to the target group and, finally, implementing the planned campaign. It is this initial first step of assessing barriers and benefits to community participation in school feeding program and then framing the message that this study accomplishes.

The study has the potential to be significant in a number of ways, including its timeliness. Many low-resource countries are struggling to make their school feeding programs sustainable. School feeding is a necessary intervention because it targets poor children directly, making it an effective safety net. Additionally, school feeding programs ensure that a child has access to at least one nutritious meal, which impacts cognition. Improved cognition facilitates learning. This study informs the design of a social marketing campaign intended to elicit community participation in school feeding programs. Although the findings cannot be generalized, they still can offer valuable

insights to the policy makers, planners, and community mobilizers on what might be a way forward to ensure that school feeding programs are sustainable.

<u>Limitation</u>

The purposive sampling procedure limits generalization of findings. Although I want to contribute to re-thinking the design of school feeding programs in low-resource countries at a global level, it is not possible to speak with authority using results from this study. The results of this study apply to the school in question and not necessarily all primary schools in Malawi.

<u>Dissertation outline</u>

This dissertation starts off with a brief introduction to the study and my motivation and inspiration to undertake this research. Chapter 2 discusses the main constructs informing this study and, drawing from the existing literature, I provide the theoretical framework for the research. In particular I discuss school feeding, community participation, sustainability, and social marketing constructs. Chapter 3 discusses the research methodology. Chapter 4 presents research findings, and, using these, chapter 5 outlines an elaborate social marketing campaign plan for promoting the use of eco-san latrines at Malembe primary school and its school community. Chapter 6, the concluding chapter, discusses implications for carrying out the outlined social marketing campaign and suggests recommendations for future research undertakings.

CHAPTER 2

LITERATURE REVIEW

<u>School Feeding Programs</u>

Definition

School feeding is the provision of food to school children. Food is given to school children either as an in-school meal or as take-home ration, or both. School feeding programs are viewed by many as a necessary component of school health programs whose overall aim is to reduce malnutrition; improve school attendance; boost enrollment, especially that of the most vulnerable such as girls and orphans; relieve short term hunger by increasing glucose levels; improve cognitive development; and act as a safety net for poor children (Sumberg & Sabates-Wheeler, 2011; Farzana, 2010; Levinger, 1986; Greenhalgh, Kristjansson & Robinson, 2007; Sanchez & Swaminathan, 2005; Powell, Walker, Chang & Granthan-McGregor, 1998; Pappas, Rafigue, Khan, Badruddin & Peermohamed, 2008; Wildeman & Mbebetho, 2005; World Food Program [WFP], 2009).

On the one hand, school feeding programs have the potential to reach the poor, thereby directly making them an effective social safety net. This is so because school feeding programs are seen as an incentive to encourage those living in poverty to send their children to school so that they receive education that will help them in future to break loose of the poverty trap (Bundy, Burbano & Grosh, 2009). Safety nets can be cash or in-kind transfer instruments intended to support the underprivileged and vulnerable from the grim situation of impoverishment (Inter-Agency Task Teams [IATT], 2007;

Devereux, 2002; Grosh, Del Ninno &Tesliuc, 2008). Social safety nets are specifically designed to target the disadvantaged in society. When well designed, safety nets have the potential to not only protect the poor and the vulnerable from circumstances of despair, but to also transform such situations to ones of hopefulness. This is achieved through the programs' focus on addressing social discrimination and exclusion (IATT, 2007).

There are two main forms of social safety net programs. One form is cash transfer, like a stipend or bursary scheme, where money is directly given to the targeted recipient on condition that they take a specific action, such as attending school or visiting health services (Chapman, 2006; Patrinos & Ariasingam, 1997). The other form of safety net is in-kind, where individuals are given food or materials; school feeding programs are an in-kind safety net (Chapman, 2006; Patrinos & Ariasingam, 1997). Wildeman and Mbebetho (2005) provide support for this categorization, as they too perceive school nutrition programs as transfers in-kind made available to primary learners coming from poor families. They particularly single out school feeding as a necessary intervention as long as poverty and unemployment conditions persist in the world (Wildeman & Mbebetho, 2005).

Globally, there are 923 million chronically hungry people. 230.2 million live in Sub Saharan Africa, 565 million are in Asia and the Pacific, 58.4 million live in Latin America and the Caribbean, and 41.6 million reside in the Near East and North Africa (WFP, 2009). United Nations Children's Fund [UNICEF] (2005) observes that there are 2.2 billion children in the world, of which 1.9 billion live in developing countries, and 1 billion of these children are living in poverty (UNICEF, 2005). UNICEF also notes that 13% of all children in the world have never been to school (UNICEF, 2005).

Although in general terms school feeding programs are less efficient than conditional cash transfer programs as safety nets due to their susceptibility to both exclusion and inclusion errors, they are still viable, especially in low-resource settings where cash transfer programs tend to be rare. On one hand, it is difficult to provide food to only the poor in a school and, as such, even the children that are not poor are fed (Smith & Subbarao, 2002). On the other hand, for safety net programs to be effective, they must reach the poorest and so, in areas where schools do not have universal enrollment, it is likely that the poorest are left out (Bundy, Burbano, Grosh, Gelli & Jukes, 2009). Nonetheless, in situations where there are no cash transfer programs targeting the poor, school feeding programs are an immediate social protection instrument.

Benefits

School feeding enhances the efficiency of the education system by improving enrollment, reducing dropouts, and increasing perseverance. This is possible because school feeding programs lessen disease and malnutrition. Research shows that poor nutrition contributes to attention deficits and poor academic performance (Alaimo, Olson & Frongillo Jr, 2001). Findings from a school feeding intervention program in Pakistan, a resource-poor nation, attests to this observation (Pappas, Rafigue, Khan, Badruddin & Peermohamed, 2008). In this example, prior to the intervention, national survey results revealed that 18.3% of the girls and 14.6% of the boys were stunted (Pappas et al., 2008). Stunting and wasting growth are indicators of childhood malnutrition (Jukes, Drake, Bundy & Farley, 2008). The government of Pakistan instituted a large-scale school

feeding program that was aimed at fighting malnutrition and poor enrolment. The results of the project showed that wasting and stunting decreased by 45% and 6% respectively and that enrolment increased by 40 % (Pappas et al., 2008).

Additionally, school feeding programs improve cognition and retention and contribute to achieving equity. By relieving short-term hunger, school feeding programs enhance cognition, and this improves the children's ability to concentrate in class, thereby facilitating learning (Jukes et al., 2008). Due to better nutrition that lowers the disease burden and enhances intellectual capability by improving a child's ability to learn, school feeding programs enable the learner to concentrate in school. Improved cognition positively affects children's capabilities, which impacts their ability to benefit from education. Once capabilities are expanded, children are more likely to maximize utilization of other resources such as textbooks and classroom instruction.

Amartya Sen (2009) explains this well through his articulation of capability theory. He asserts that focusing on expanding capabilities rather than providing more resources, as is the case in most development approaches, enables poor children to benefit more. He argues that an individual's capability to make the most of resources varies such that the disadvantaged require more resources to achieve the same outcomes as those achieved by the "normal". In other words, there are many factors at an individual level that affect the utilization of resources to the extent that equal distribution of resources does not always lead to equality of outcomes (Sen, 2009). School feeding programs improve children's cognition and specifically target the poor especially in low-resource countries. These programs are therefore a convincing avenue for achieving equity.

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Furthermore, development theorists argue that, for nations to build human capital, there is a need to invest in education. Psacharopoulos (2002) claims that providing basic education in poor countries, particularly targeting girls, yields encouraging rates of returns to education. School feeding programs have demonstrated success in encouraging girls to attend and persevere in school. For example, in Malawian schools, where girls are given take-home ration, their participation is near universal at 98% (as cited by Devereux, Sabates-Wheeler & Pascual, 2010). School feeding programs are therefore a means for "generating synergies with learning, attracting and retaining girls in schools, and opportunities for stimulating local market demand" (Dobie & Yuksel, 2005, p. 12). Currently, all feeding programs are encouraged to locally source foodstuffs rather than importing food in order to stimulate local food production and offer markets to local food producers.

Challenges to school feeding programs

Over-reliance on external funding and lack of localized support structures for school feeding programs are among the many challenges that pose a serious threat to the continuation of such programs in low-resource countries. Recently, World Food Program (WFP), a major donor in school feeding programs, declared that it is failing to reach all the needy in its impact areas because it depends on voluntary contributions from governments and donors, and these contributions keep declining (WFP, 2009). Host governments are thus encouraged to take over the provision of school feeding programs in their respective countries.

Unfortunately, finances are not the only challenge facing continuation of school feeding programs in low-resource countries. Not everyone is convinced that school feeding programs are effective. For instance, participants at a school feeding/food for education stakeholders meeting in 2000 concluded that there is little substantiation for nutritional benefits of school feeding (as cited by Kristjansson, Petticrew, MacDonald, Krasevec, Janzen & Welch, 2009). In addition, there is also the concern that poor families may use the school feeding program as a justification to substitute meals at home. A case from Malawi where a survey on school feeding program indicated that 77% of children who access food at school disclosed that they get less food at home (a claim that was supported by 82% of caregivers who confirmed that substitution was happening) is offered in support of this assertion (as cited by Kristjansson et.al, 2009). Fortunately, this concern can be addressed by sensitizing the community and also by making sure that the food portions given to children at school are enough to compensate for this unintended effect of school feeding program on poor families.

Furthermore, food insecurity in Africa is another major factor that is threatening the continuation of the program in this particular region. It is observed that of the 39 countries worldwide who faced emergency situations in 2003, 25 were in Africa (Clover, 2003). Additionally, 24,000 people die every day from hunger in Africa (Clover, 2003). Malawi, my focus country, is located in Africa.

School feeding programs in countries like Malawi deliberately target the poor with the aim of providing a safety net and at the same time mitigating effects of hunger that directly affect educational achievement. School feeding programs are dependent on the availability of food for their continuation. A recent report on "the governance

dimensions of food security in Malawi" claims that "Malawi is among the most food insecure countries in the world" (Sahley, Goelsma, Marchione & Nelson, 2005, p.7). The same report notes that Malawi is becoming dependent on the world community to fulfill its food needs, and this is done through international food aid donations. As food becomes scarce, the cost of acquiring it keeps going up. World Food Program, for instance, laments the ever rising cost of food which is making it difficult for the organization to provide school feeding to all the needy children (WFP, 2009). Additionally, Sahley et al. (2005) note that most households in low-resource countries, including Malawi, are poor living below the poverty line, which makes them vulnerable to any slight climatic changes (see also Dobie & Yuksel, 2005). These households are unable to afford the minimum basket of necessities, and the unfavorable climatic changes just worsen their already vulnerable situation. Due to unpredictable climatic changes, people in Malawi sometimes experience heavy rains that sweep away entire farms or they experience prolonged dry spells that kill plants (Magrath, 2010).

Furthermore, poor food utilization especially in Malawi (dominance of maize in relation to other equally important foods like green vegetables and beans) impacts negatively on nutritionally related diseases. An estimated 40,000 children in Malawi die every year due to nutritionally related diseases that are preventable (Sahley, et al., 2005). Aiga, Matsuoka, Kuroiwa and Yamamoto (2009) observe that malnutrition accounts for 56% of the causes of mortality for children under five years of age in Malawi (Aiga et al., 2009). However, research on food security indicates that those countries that are poor and have so many hungry people in fact produce food abundantly (Sahley et al., 2005). For instance, the food crisis that Malawi experienced in 2001-2002 was partly attributed to

"poor donor advice [and] Malawian mismanagement of the strategic grain reserve", among other reasons (Sahley et al., 2005, p. 9; see also, Cammack, Chulu, Khaila & Ng'ong'ola, 2003).

Additionally, the main factor that small holder farmers attribute to causing insufficient food is their lack of adequate land to cultivate. Land in Malawi is inequitably distributed to the extent that, on one hand, the "average arable land holdings are 0.23 hectares per capita" while on the other hand, "as much as 28% of the country's available arable land [in the hands of estate owners] is idle" (Sahley et al., 2005, pp 10, 20; see also, Devereux et al., 2006). This indicates that food availability in Malawi as a nation may not be the issue. Rather, people's access to the food, its utilization, and mitigation of vulnerabilities seem to be the main reasons for this chronic food insecurity that the Malawi nation continues to face.

In many low-resource countries, school feeding programs are designed to protect children from the effects of hunger. This prevents them from falling into the poverty trap since food advances their cognitive abilities, thereby enabling them to get the most out of education. School feeding programs have the potential to help nations achieve equality in nutritional as well as education outcomes. These factors make school feeding programs a necessary intervention in low-resource countries. Unfortunately, many school feeding programs in such countries are externally supported through donors. Sadly, donors are now pushing host governments to develop exit strategies (transition from external to localized support) for such programs. Malawi is one such country that is currently implementing school feeding programs with the help from donors such as the World Food Program (WFP). The government of Malawi faces the challenge of coming up with

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an exit strategy for school feeding programs that is self-sustaining and in line with its

decentralization policy. It is well documented that community-based interventions are

self-sustaining (Reed & Dougill, 2002; McKenzie-Mohr, 2002; Cohen, Scribner &

Farley, 2000, Amazigo, Okeibunor, Matovu, Zoure & Sekeleti, 2007; Nkansa &

Chapman, 2006). If school feeding is to become self-sustaining, there is clear need to

focus on ways of getting communities involved in school feeding.

<u>Community Participation</u>

Community participation is a contested concept. Some view it from the utilitarian

standpoint while others view it from the empowerment perspective (Draper, Hewitt &

Rifkin, 2010). Those that use community participation as a means to get people to do

what the technocrats want are seen as operating from a utilitarian viewpoint while those

with a broader desire for emancipation operate from an empowerment perspective

(Draper, Hewitt & Rifkin, 2010). Paul (1986) interprets community participation as "an

active process by which beneficiaries influence the direction and execution of the

development project with a view to enhancing their well being in terms of income,

personal growth, self-reliance or other values they cherish" (as cited by Broham, 1996, p.

252). Rifkin in earlier work (1986) pointed out that it is not useful to have a universal

definition of community participation because the term is fluid depending on the

objective of enlisting community involvement. On one hand, this paper defines

community as a grouping of people who may or may not share similar values and beliefs

but live within a specific locality. Although Sapin (1990) observes that a community

generally holds something in common and is of a common identity (as cited by Gilbert &

Tounkara, 2002), this is not the way community is viewed in this discussion. For instance, Wolf (1997) and Mosse (2001) note that community is not essentially a homogenous collection of people with shared perceptions and that emphasizing commonalities may limit understanding of the ways in which local authority is strengthened (as cited by Rose, 2003; Rifkin, 1986).

Due to the colonial influence, it is common in Malawi to have people with diverse values and beliefs living in the same community. My definition of community acknowledges this diversity within groupings of people. For example, if a school community can be used as an example, then all villages that feed children into the school (children from these villages learn at the school) are considered as the community of that specific school. Furthermore, community can be perceived as a process through which people take initiative and collective action (Gilbert & Tounkara, 2002). This is a common understanding of community in Malawi. I am therefore interpreting community in this paper as a product of shared space (children access same school, come from same villages) and a process of collective action.

On the other hand, participation can be viewed from either a "genuine" or a "pseudo" perspective (Rose, 2003). Unlike pseudo participation (which others refer to as utilitarian; see Draper et al., 2010) where community members are only informed about prior decisions, genuine participation (also called empowerment participation) enables community members to control decision making (Draper et al., 2010; Rose, 2003; Broham, 1996). Pseudo participation is described as extractive and restricted to resource mobilization while genuine participation is empowering. In this paper, I perceive

participation as the ability of communities to direct the course of action after engaging in a critical analysis of their situation.

Mezirow (1990) asserts that critical reflection is essential if any meaningful change is to happen. He observes that there are two frames of reference that have a direct bearing on people's perceptions, and these are "a habit of mind and a point of view" (as cited by Merriam, Caffarella & Baumgartner, 2007, p. 132). He further defines "a habit of mind" as the deep-rooted assumptions that people hold, while "a point of view" is explained as the resultant beliefs and value judgments arising from the assumptions (as cited by Merriam et.al., 2007). An example of a habit of mind related to school feeding programs might be the assumption held by some people that those who fail to feed their children are lazy and, as a result of that assumption, they might hold the belief that it is not anybody's (government, community or international donors) responsibility to feed children in school. Targeting the habits of mind by deliberately letting the community members analyze their situation by challenging their assumptions surrounding the role that they play in fostering development is critical in ensuring that transformational change occurs; otherwise they will continue to be comfortable with the status quo. Genuine community participation ensures that all members make informed decisions about the course of action to take, and this can be achieved if the communities operate in an environment that encourages critical reflection. In addition, unadulterated community participation enhances efficiency and equity (Dobie & Yuksel, 2005).

Research on community participation in health projects supports this claim. The Jamkhed project carried out in India (1972-1992) is an example of an initiative that used participatory approaches to create an environment where communities were able to take

control of health issues by choosing to focus on improving sanitation. They made sure that they had access to clean water, and they also identified women from their community to undergo health worker training. After 20 years, the project showed a reduction in the infant mortality rate from 176 per 1000 to 19 per 1000 (Rosato, Laverack, Grabman, Tripathy, Nair & Mwansambo, 2008). The malnutrition rates were less than 5% from the initial 40%. Additionally, women who ran the project developed a sense of agency and were able to question issues such as the justification of caste system (Rosato et al., 2008). The 20-year period is an indicator of the potential for the program to sustain itself; otherwise it would not have been in operation for such a long period of time. The success of the program is attributed to community involvement (Rosato et al., 2008).

However, in an examination of health care programs across several countries which had the aim of increasing coverage and scalability of health programs, those that didn't use participatory approaches led to no substantial progress in reducing maternal mortality and improving child survival (Rosato et al., 2008). For example, "of the 68 priority countries targeted for child survival improvements in Sub-Saharan Africa, 41% were deemed to have made insufficient progress and 38% made no progress" (Rosato et al., 2008, p. 963). According to the authors, lack of progress is attributed to the absence of community participation.

In addition, Amazigo, Okeibunor, Matovu, Zoure and Sekeleti (2007) conducted a study to evaluate sustainability in community-directed treatment projects for onchocerciasis (liver blindness) control; they found that sustainability is associated with community participation. Onchocerciasis is a parasitic disease that is transmitted by black flies, and it causes blindness (World Health Organization [WHO], 2010). This study,

which was carried out in 10 African countries—namely, Cameroon, Chad, Congo (Brazzaville), Congo (Kinshasa), Ethiopia, Malawi, Nigeria, Sudan, Tanzania and Uganda—concluded that there is a positive association between community participation and sustainability. The study sought to examine the association between community involvement and overall project sustainability in 492 communities in 10 African countries where an initiative to fight onchocerciasis disease was instituted. The independent variable was community involvement, which was operationalized as the communities' involvement in routine project activities and processes at the planning, leadership, human resources, mectizan (medicine used in the treatment of onchocerciasis) supply and distribution, monitoring, and supervision stages. The dependent variable was treatment coverage, which was operationalized as the therapeutic coverage of 65% or above of the people requiring treatment. Unfortunately, the authors did not provide baseline information, making it slightly challenging to confidently attribute the results to the independent variable. It should be noted that this was a randomized one-group study where a multi-stage sampling technique was used. There were four implementation levels of the project (central, district, sub-district and community). At each level, a random sampling procedure was used and a total of 492 communities were selected in 10 African countries. Nine community-level sustainability indicators developed by researchers with experience in sustainability issues and managers of the project were used to assess performance. Both qualitative (interviews, document review, and participant observation) and quantitative (numerical ranking of the nine indicators) data collecting and analyzing methods were used. Data were analyzed by calculating the average sustainability score for each indicator at each level and then calculating the mean scores for the four

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operational levels to determine the overall project sustainability. Results indicated that over 70% of the projects got satisfactory sustainability scores at the community level (defined as a score of 2.5 or more on a 4-point scale). Further analysis revealed that sustainability indicators were highest when the communities had the most control and were lowest when they depended on government health systems to make decisions.

In addition, some communities offered incentives to key personnel while others did not. Those communities that offered cash incentives had lower treatment coverage of 66% compared to 70% score of the communities that offered in-kind incentives. Communities providing no incentives had the highest treatment coverage of 72%. However, the differences are not statistically significant because of small sample sizes, as many communities didn't have available information on incentives. Nonetheless, the observation offers a valuable learning opportunity. The study observed that the overall project sustainability score was dependent on the community-level score and concluded that community level performance is positively associated with the overall project sustainability.

As a non-health project example, Nkansa and Chapman (2006) carried out a qualitative study that sought to test a model of sustainability that drew elements from economic, social, and ecological imperatives on a community school alliance project in Ghana. The resulting model hypothesized that the sustainability of project elements is affected by both management elements (planning, transparency, resources, leadership, and participation, which in most cases are externally influenced) and socio-cultural dimensions (social cohesion, community skills, and valuing of education, which are underlying components of communities). Specifically, the study examined:

- the extent to which the Parent Teacher Associations and School

  Management Committees continued to operate beyond the life of the

  project funding, and

- the extent to which partnership communities that differed in the post-

  funding sustainability of PTA project activities also differed on

  components of the synthesis model.

The study acknowledged the complexity of ensuring that activities continue once

external funding ends, based on the literature suggesting diverse views concerning what

needs to be sustained. Some believe that the economic imperative is the most important,

while others feel the ecological is probably the aspect that should be sustained (As cited

by Nkansa & Chapman, 2006). Yet others advocate for the social imperative. This study

therefore tried to draw from the various aspects of sustainability and came up with a

model that was tested in one of the project components (Community School Alliance that

focused on improving the school environment through greater community participation in

decision making, among other factors) in Ghana. The overall aim of the project was to

contribute to Government of Ghana's efforts to increase the accessibility and quality of

basic education. By examining the relationship between sustainability, management and

socio-cultural elements, the study results offer support to efforts that ensure communities

meaningfully participate in initiatives aimed at improving their well-being.

On one hand, the study had community participation as its independent variable,

operationalized as the involvement of Parent Teacher Associations and School

Management Committees in the monitoring and supervisory aspects of the project. On

the other hand, the dependent variable was sustainability, operationalized as the

likelihood that the impact of an intervention strategy would become a normal routine of the school community after funding ended. This was a qualitative study that used a stratified (high and low performing communities, main ethnic groups, and geo-political regions) convenience sample of 6 of the 27 communities that were rank ordered using the projects' sustainability scores. Interviews were the main data collecting tools. Data were analyzed and themes identified using the eight components of sustainability that fed into the model being tested. Results indicated that those communities with low sustainability scores were those that were poverty-stricken, relying heavily on subsistence living, while those that scored high were communities in Accra, the capital of Ghana. In terms of leadership, high-sustaining communities had versatile and dynamic leaders who invested time and personal resources and had a good working relationship with traditional leaders. However, in low-sustaining communities, it was observed that there was tension between Parent Teacher Association and School Management Committees efforts and the local leadership. High-sustaining communities were consistent in their planning activities while low-sustaining communities struggled to articulate activities that would lead to successful implementation of project needs.

Although all six communities were classified as poor, there were remarkable differences between the high-sustaining and the low-sustaining communities in their ability to mobilize resources. In high-sustaining communities, their understanding of the term *resources* was broader, incorporating both economic and social resources, while low-sustaining communities viewed resources as financial contributions. The study concluded with an observation that sustainability was heavily dependent on leadership and social cohesion and proposed that these two factors should influence initiatives aimed

at fostering sustainability. The study further recommended that sustainability can better

be looked at by examining the participants' behavior rather than concentrating efforts on

studying the organizational structures. This implies that it is the behavior of the people

that influences change and any efforts that aim to bring meaningful change need to pay

particular attention to how people's behavior can be influenced. Even though the

sampling procedure makes it challenging to draw generalizations from the study, the

findings offer insightful knowledge to sustainability discourse. From the findings of these

case studies, it can be concluded that projects that fully involve communities have the

potential to be sustained.

Sustainability

Sustainability is a complex concept. Due to this complexity, there are many

varying representations of the term as well as definitions. For instance, Desjardins (2010)

cautions that the simplicity of the term masks many complexities. Even though

Desjardins (2010) discusses sustainability in terms of economic, environmental and

ethical pillars, he however is not clear on how the ethical pillar of sustainability ought to

be conceptualized and he ponders, " philosophically, should this ethical dimension be

conceptualized in terms of distributive justice, the rights of future generations, utility, or

such virtues as frugality and prudence?" (Desjardins, 2010, p. 724). The World

Commission on Environment and Development (WCED) 1987 report defined

sustainability as "development that meets the needs of the present without compromising

the ability of future generations to meet their own needs" (WCED, 1987, p. 43). It was in

1987 that "Sustainable development" and "sustainability" gained profound visibility on global debate.

Development is indeed a term that is interwoven with sustainability (Harris, 2007). Some people view development as freedom of choice (Sen, 2009) while others view the availability of choices as development. Looking at the dictionary definition of development, one can see concepts such as "gradual advancement" and "progressive change" as being at the center of development (dictionary.net, 2010). Since my focus in this paper is on sustaining school feeding programs in low-resource countries, an initiative aimed at providing opportunities for the underprivileged so that they can improve their conditions, I will draw from the sustainable development discourse when exploring this concept "sustainability". Development should enhance people's well-being and school feeding programs have the long term goal of enhancing people's well-being. My approach to development places more emphasis on ensuring that people are able to access basic needs both for private consumption such as food, shelter, clothing, as well as for collective consumption such as health care, education, and safe water, so that their well-being is improved. School feeding is an initiative aimed at ensuring that the underprivileged have access to two of these critical basic needs: food and education.

Sustainability can also simply be defined as keeping going or continuing an initiative. In other words, as Lele asserts, "taken literally, sustainable development would simply mean, development that can be continued – either indefinitely or for the implicit time period of concern" (Lele, 2005, p. 167). To sustain therefore means to continue; in this paper, what is at stake is the continuation of school feeding program in low-resource countries.

Clarifying sustainability further, three imperatives emerge: economic, ecological, and social. Robinson and Herbert (2001) define sustainability as the bringing together of these three imperatives. The *economic angle* of sustainability has to do with nonstop availability of goods and services for the fulfillment of basic needs (Dale & Newman, 2005; Harris, 2003). The *ecological aspect* of sustainability mainly focuses on "the maintenance of ecosystem resilience" so as to live within earth's capacity (Harris, 2003, p. 5; see also Dale & Newman, 2005). Ecology is the study of how the earth household works or the study of relationships that interlink all members of the earth household (Capra, 1996). The ecological aspect of sustainability therefore entails the ability of interventions to not compromise the earth by "staying within biophysical carrying capacity" (Robinson & Herbert, 2001, p. 148). The *social dimension* of sustainability has to do with the maintenance of "life enhancing condition within communities" (Mackenzie, 2004, p. 15; see also, Sharma & Ruud, 2003; Goodland, 1995). These, on one hand, include equity of access to basic services such as education, health and transport and, on the other hand, consist of preserving value and belief systems (Mackenzie, 2004; Goodland, 1995).

Sustainability is viewed as the process of finding a balance between these three imperatives (Sharma & Ruud, 2003; Dale & Newman, 2005). In other words, sustainability encompasses the need to maintain something of value that is feasible and also addresses how to make systemic changes that will enable the continuity of the valuable initiative (Center for Mental Health in Schools [CMHS], 2004). Since ecological, economic, and social aspects of sustainability are systems within the broader sustainability system, it is imperative that any attempt to understand this concept should

be grounded in systems epistemology (Dale & Newman, 2005). This is so because there is no fine line linking these essential components. They are in reality interconnected in what I term "the web of sustainability". So to understand sustainability, one has to first explore the relationships and connections between these three imperatives because everything is connected.

Systems theory is very useful here because it is based on the premise that the world can better be understood if it is viewed in terms of events, relationships, patterns, and structures (Capra, 1996). Therefore, to understand sustainability better, one has to engage in the task of exploring the relationships and connections between the ecological, social, and economic aspects of the concept. Although it might be possible to address an imperative in isolation (for example, an initiative could only concentrate on addressing economic problems and not necessarily ecological or social issues), this kind of approach in the long run may not be sustainable at all.

Taking school feeding program as an example, one might intensify production of maize in order to maximize economic gains and in the process overexploit the land, causing loss of soil nutrients. After continued use, the land may become unproductive, and this is not what a sustainable initiative should produce. Moreover, the need for economic growth will still be there even though the land is rendered unproductive, and, because influential people have the power and means to acquire more land, poor people who are failing to maximize use of their land may be forced to give their land up to these powerful few. It is therefore not possible to address economic problems without affecting ecological and social aspects of the target group. The following section will explore the

complicating factors for advancing a sustainable school feeding program from a systems perspective.

Ecological and social imperatives of a sustainable school feeding program

Working from an understanding that ecological and social imperatives are the central focus of sustaining school feeding programs and that the economic imperative is the intended outcome, I will attempt to explore the difficulty of achieving a balance within these three dimensions. As an example to illustrate the complexity of sustaining school feeding programs in Malawi, this section will explore the ecological and social implications of maintaining the provision of a mid-morning portion of corn soya blend, locally known as Likuni phala, to children enrolled in 948 schools where school feeding programs are currently being implemented. In addition to the provision of likuni phala, girls whose attendance is regular take home a ration comprised of 12.5 kg of maize at the end of every month (WPF, 2009).

Factors that make school feeding programs unsustainable should be considered if an understanding of the complexity of the issue at hand is to be achieved. Such dimensions include: overreliance on donor funds, food issues, infrastructure hassles, sanitation problems, land issues, climatic changes and time constraints, just to mention but a few problems. As there are so many perspectives on how to understand the social and ecological aspects of sustaining school feeding programs, it is important to bring together as many of these aspects as possible and understand how they function in order to begin to make connections and gain a rich picture of the constraints and opportunities for attempting such an endeavor.

Exploring a broader understanding of school feeding is essential because it is very difficult to predict a complex situation based on limited knowledge. There is need for a broader information base to determine the pattern of a complex situation, which may follow a certain guide that depends on some level of understanding of the situation and circumstances. (Ramalingam, Jones, Reba & Joung, 2008). Corn and soya, the main ingredients in likuni phala, are both locally grown in Malawi. However, for a continued supply of these two important ingredients, there is need to have fertile land where the communities can continuously cultivate the crops without compromising the quality of the soil. Economically, school feeding programs should lead to short-term fulfillment of two essential basic needs, namely food and education; enhanced well-being is a long-term outcome. Socially, all this should happen within an environment that respects people's cultural values and beliefs. In order to integrate these three imperatives, Robinson and Tinker (1998) recommend the use of dematerialization and re-socialization strategies.

Dematerialization is the lowering of material input in production with the aim of keeping "the pressure on natural resources at tolerable levels" (Bartelmus, 2003, p. 68). In other words, this strategy involves the adoption of technologies that are environmentally friendly so that economic progress is achieved concurrently with ecological sustainability (Ausubel & Waggoner, 2008; Ziolkowska & Ziolkowski, 2011). The ideal situation can be when the material input and wastage in the production process is reduced whilst production remains the same or is increased. In contrast, Robinson (2004) defines *re-socialization* as "increasing human well-being per unit of economic activity" (Robinson, 2004, p. 381). Re-socialization is also viewed as the re-visiting of

previously acquired knowledge and skills in order to ably address a need in a particular

society or community (Sam, 2006). Emphasis here is on building social capital, thereby

broadening the definition of development (Robinson & Herbert, 2001). Oswald (2010)

suggests that measurement systems should not only emphasize economic growth, but

they should include people's well-being. Even though many define development in

economic terms, studies show little correlation between rise in real income and increase

in happiness levels (Graham, 2011; Oswald, 1997). Oswald (1997) carried out research in

a developed country context in pursuit of an answer to the question concerning the

relationship between improvement in real income and extra happiness. He concludes that

economic progress contributes very little to increased levels of happiness (Oswald, 1997).

In support of this claim, Graham (2010) observes that people in Afghanistan are happier

than people in Chile even though they live in an unstable environment (war torn country).

He also notes that poor people from Africa are more hopeful than the rich and that

Kenyans are generally more satisfied with their health system than the Americans

(Graham, 2010). It is generally agreed by the advocates of the re-socialization approach

that not every activity that can contribute to the enhancement of well-being can be

measured using economic indicators. Sustaining school feeding programs in Malawi will

draw heavily on the social and ecological aspects of sustainability. This is so because the

economic aspect of the program is a long-term goal and, if the two imperatives are

carefully balanced, it will follow that economic growth will be the utmost outcome.

Firstly, the social aspects of a sustainable initiative require that people's cultural

values and beliefs be respected. One way through which beliefs and values manifest

themselves in a community or society is through the food that people eat. Malawi has a

diverse population with diverse cultural beliefs and values and, as such, people's eating

habits are different. Therefore, to gain an understanding of the social aspect of sustaining

school feeding programs in Malawi, it is necessary to position the current implementation

strategies within the context of values and beliefs of the Malawi population. When

Malawi is viewed as a nation, maize is singled out as the staple food for the people of

Malawi. However, when one starts to isolate communities within the nation, a totally

different perspective emerges. For example, the communities in the northern part of

Malawi do not necessarily view maize as their staple food. They have plantains, rice, and

cassava as their staple food. A school feeding program that can be sustainable without

relying on donor support should pay attention to this important factor.

The main question to guide food choice should be in line with the main reason for

providing the food to school children, which is to ensure that their energy levels are

boosted so as to impact their cognitive abilities and to promote their regular attendance.

Foods high in energy, protein, and vitamin content improve cognition. (Neumann, Bwido,

Murphy, Sigman, Whaley & Demment, 2003; Gilsenan, Bruin, & Dye, 2009). Maize and

soya, the current foods used in the school feeding program, are not the only sources of

energy, proteins, and vitamins. Plantains, cassava, groundnuts, and rice are among the

foods that also can provide energy, proteins, and vitamins. Providing simple rules to

guide the choice of foods to be used in school feeding programs will bring the flexibility

that is needed to help in sustaining such programs.

Ramalingam et al. (2008) note that simple rules of interaction help shape and

promote initiatives. They cite an HIV/AIDS campaign carried out in Uganda that was

successful but only had "Abstain, Be Faithful, Use Condoms," as the three rules guiding

it (Ramalingam et al., 2008, p. 22). Systems theory that is guiding my understanding of sustainability provides support to the notion of simple rules when it acknowledges that characteristics of systems emerge from simple rules of interaction (Ramalingam et al., 2008). Simple rules guiding the choice of food for school feeding program could be "food sources of energy, protein and vitamins".

Land that directly influences the community members' ability to be food secure, thereby impacting their overall well-being, is another tricky issue that has a bearing on the sustainability of school feeding programs in Malawi. The inequitable distribution of land in Malawi has a historical explanation. According to Glasson, Frykholm, Mhango and Phiri (2006), colonization had a negative impact on land policies in Sub-Saharan Africa due to the concept of commercialization of land that the Europeans brought. Prior to that, land was communally owned. However, the situation nowadays is shocking as many of the hungry are poor peasants who are either landless or has very little land to support their livelihood. Even though accurate data regarding the number of people that are food insecure is hard to find, Dobie and Yuksel (2005) estimate that "roughly two tenths of the hungry are landless rural people" (p. 4; see also De Schutter, 2010). Value for community living is one of the attributes that many African countries, including Malawi, share. Boahen (1987) attributes the high levels of poverty being experienced by many indigenous communities to the unequal distribution of land, a direct consequence of colonial land policies (as cited by Glasson, Frykholm, Mhango & Phiri, 2006).

Any initiative that draws on the use of land should pay attention to the history surrounding land issues currently being experienced by many indigenous communities in Malawi. Chirwa (2005) suggests land re-distribution as one of the strategies that will

contribute to the reduction of poverty (as cited by Glasson et al., 2006). The ability for schools and communities to own their own land where they can cultivate crops that will provide good sources of energy, proteins, and vitamins might greatly enhance the sustainability of school feeding programs.

Systems thinking urges us to pay particular attention to initial conditions. The land issue is an example of an initial condition for any program that relies on the availability of land for its continuation. As Ramalingam et al. (2008) assert, "the interactions that are taking place at any moment in time have evolved from a previous moment in time, that is, all interactions are contingent on an historical process" (p. 27). Land in Malawi was previously communally owned but now, due to European influence, its ownership represents a challenge for school feeding programs. Can school feeding programs draw on community living value and beliefs for its continuity? If so, how can this happen? Can social capital be promoted so as to bring back the values and beliefs that previously guided the indigenous populations of Malawi in terms of food habits and the way land issues are resolved?

Currently, the need to stay within the biophysical carrying capacity, an aspect of the ecological imperative of sustainability, is highly compromised in Malawi. This is partly due to mono-cropping practices of farmers (maize being the dominant crop cultivated), which renders soil unproductive unless manure is used to nourish the soil. Unfortunately, indigenous ways of nourishing the soil are rarely practiced; many farmers rely on expensive chemical fertilizers, which they cannot afford, thus reinforcing dependency on external support (government or otherwise) to ensure a good harvest (Magrath, 2010; Nordin, 2010). This situation is similar to what Ramalingam et al.

(2008) articulate as "path dependence", where a particular alternative acts as a blinder: even though there are many other ways of addressing an issue, only one way "gains [an] upper hand [and] it becomes 'locked in' and it is not possible to go to any of the previous available alternatives" (p. 28). Cultivation of maize and reliance on chemical fertilizers is a "lock in" that might negatively impact sustainability of school feeding programs in Malawi.

There is need to get people interested in natural ways of practicing agriculture as a way to reduce production expenses (Magrath, 2010). Malawi is one of the world's poorest countries where more than half of the population lives on income of less than 1 dollar a day (Kamanga , Vedeld & Sjaastad., 2009). By emphasizing indigenous methods that rely on natural means of cultivating crops to enhance ecological sustainability, the inputs that are destructive to the environment are reduced whilst production is improved. Currently, a few schools in Malawi are implementing permaculture as a way of ensuring sustainability of school health and nutrition programs. *Permaculture* is a term that means permanent agriculture, coined by Bill Mollison, an Australian, in 1970. However, over the years, its meaning has evolved, and it now includes cultural aspects of living as well. It advocates for the use of available natural resources to their fullest potential by mimicking relationships found in nature (MacManus, 2010; Mollison, 1988; Nordin, 2010; Millington, 2002). In other words, permaculture is grounded in the notion of using nature as a model to foster sustainable behavior. Although permaculture can be applied to all aspects of living, such as access to land, information, and financial resources, food production remains its core focus (Wasser, 1994).

Permaculture is a dynamic, comprehensive system. Based on Mollison's observation of nature that led him to coin the concept, he concluded that all parts of the natural system work and complement each other. For instance, bees pollinate, birds control pests, plants produce oxygen, and trees regulate the atmosphere and conserve soil nutrients, while man provides the nutrients for the soil through his excreta and urine. Care for the earth, people, and re-investing surplus to earth and people are the three ethical issues that guide permaculture design and implementation (Mollison, 1988; Millington, 2002). In addition, the main principles that guide permaculture are:

- conservation (using only what is needed),

- multiple functions (one element can meet several functions; a tree provides shade, fertilizes the soil, prevents erosion etc.),

- diversity (using several elements to develop resilience such as planting a variety of crops, some of which are diggers, fixers, strong smelling to keep away pests, etc.), and

- reciprocity (human excreta can be re-used as manure that will boost crop yield).

The few schools that are currently practicing permaculture in Malawi nourish the soil using indigenous ways such as mulch or compost; they recycle water and plant indigenous crops.

Compost can also be gotten from eco-san latrines. Eco-san is an acronym for ecological sanitation. These toilets enable the recovery of nutrients contained in human excreta that can then be safely re-used in agriculture (Jenkins, 2005). There are three main eco-san systems, namely, dehydrating systems, composting systems and soil

composting systems (Lau, 2011; Lungu, Morse & Grimason, 2008). The toilet itself can take several forms. The toilet can either be a water proof container or a shallow pit or a shallow concrete pit/bin. These eco-san toilets also require organic/carbon cover material and in some instances compost bins (some toilets like the shallow pit and the concrete pit are themselves compost bins as well). The first type is the dehydrating system which uses urine-diverting technology. Urine is separated from faecal matter and can be diluted and immediately used as fertilizer. Ash, soil or any organic cover material is then added after each defecation and once the toilet is full, the human excreta is left to sit for a period of 6-12 months to allow for composting and pathogens to die. The humus that is formed can be safely re-used to grow crops (Lau, 2011; Lungu, Morse & Grimason, 2008; Morgan, 2005).

The second type is the composting system. Urine, faeces, toilet paper and cover material are all collected together. Cover material (saw-dust, rice husks, maize bran etc.) is used to cover human excreta every-time one visits the toilet. If the toilet is a water proof container, contents are emptied into a compost bin that can either be made from bricks or wood and cover material such as dry grass or dry leaves are used to cover human excreta every-time the container is emptied. Once the compost bin is full, it is allowed to sit for a period of 6-12 months to allow for composting to occur. Pathogens are killed and the resultant humus can safely be re-used to grow crops (Lau, 2011; Lungu, Morse & Grimason, 2008; Morgan, 2005). The third type is the soil composting system. In a soil composting toilet, faecal matter and sometimes urine are deposited in either a shallow pit (about 1.5m deep) or a concrete pit/bin and a generous amount of soil is added. After the pit is full, it is allowed to sit for a period of 6-12 months to allow

pathogens to die and composting to occur. The resultant humus can safely be re-used to grow crops (Lau, 2011; Lungu, Morse & Grimason, 2008; Morgan, 2005).

As can be noted from the above discussion, eco-san latrines provide an avenue for recycling human excreta. In Ethiopia, eco-san toilets boosted the people's health as well as agriculture benefits and fostered lasting behavior change (Simpson-Hebert, 2007). Furthermore, experimental work on eco-san latrines done in a Zimbabwean school concluded that school children could be a viable avenue for promoting ecologically sound interventions. At this school, 16 students from grades 5 and 6 were trained on how to construct eco-san toilets in addition to being taught the importance of sanitation and hygiene. Results from the school garden yield indicated that there was an increase in the maize and vegetable yields that used urine compared to those that used none. For instance, "the mean weight of maize cobs increased from 2.14g to 163g (trial 1), 4.6 g to 140 g (trial 2), and from 14.27g to 256 g (trial 3) (Shangwa & Morgan, 2009, p. 330).

Although in this school the boys collected urine in bottles, there are eco-san toilets that can be constructed that use urine-diverting technologies. Once the toilets were full, a fruit tree was planted and eventually an orchard emerged. The results of this experiment are important because in Zimbabwe, as well as Malawi and other developing countries, fertilizer is very expensive, and many people cannot afford it. In addition, this initiative can serve as an example to the communities, and children can teach and model this behavior to their parents (Morgan & Shangwa, 2009). However, the food realized from such initiatives is often not enough to feed all children all year long. Nonetheless, this is an initiative that is an example of a dematerialization strategy that can inform the ecological, social, and economic imperative of sustaining school feeding program.

Adopting such an approach will also contribute towards the realization of Millennium

Development goal number 7 which thrives to ensure environmental sustainability by

integrating the principles of sustainable development into country policies and programs

and, reverse the loss of environmental resources and halving by 2015, the proportion of

people without sustainable access to safe drinking water and basic sanitation. In addition,

the linkage between nutrition and agriculture in this particular strategy has the potential

to improve programs aimed at reducing hunger (Dobie & Yuksel, 2005). This approach is

also in line with Malawi Government National Sanitation Policy (MGNSP) mission,

which is "to ensure that all people in Malawi own and have access to improved sanitation

facilities, practice safe hygiene, and practice safe recycling of liquid and solid waste for

sustainable environmental management and socio economic development" (MGNSP,

2008, p. 7).

Thus, a question arises. If community participation is critical for achieving

sustainability, how then can a community's participation be enlisted? The following

section will explore social marketing as a viable tool for influencing social behavior.

Community participation is an example of a social behavior.

Social Marketing

Social marketing is a strategy for influencing behavior change. It is a process that

applies traditional marketing techniques (coming up with a *product*, *price*, *place* and

promotion strategies), to influence a target audience to adopt, adapt, maintain or reject a

behavior for the benefit of individuals, groups, or society as a whole. Social marketing

seeks to segment the market and target specific populations and use a marketing mix

(*product, place, price*, and *promotion*) to develop unique strategies for each to achieve the desired behavior change. This section will discuss in detail the four marketing principles of *product, price, place*, and *promotion* that are at the center of any social marketing initiative, using the *health belief model* theory (Glanz, Rimer & Lewis, 2008) as the point of reference. The health belief model operates on the premise that, as one element, individuals are prone to change their behavior if they perceive their susceptibility and severity to be affected by the issue at hand as consistent with their current behavior, and, as a second element, if the individuals' believe that benefits of adopting the advocated-for behavior outweigh the barriers that might hinder them from embracing the behavior. Social marketing is geared towards minimizing the barriers and enhancing the benefits so that individuals are motivated to adopt, adapt, maintain or reject a behavior for their own benefit or that of society.

When exploring the concept of social marketing, I will use two case studies, namely "Health in our hands, but not in our heads", a hand-washing promotion initiative in Ghana, and "VERB", a social marketing campaign to increase physical activity among the youth in the USA. Below is a brief description of each project.

"Health in our hands, but not in our heads"

This was an initiative (Scott, Curtis, Rabie & Garbrah-Aidoo, 2007) that used consumer research to find out the benefits and barriers of practicing hand washing with soap so that the information gained should feed into a national communications campaign in Ghana. This randomized study was carried out in five geographical regions of Ghana (Accra, Ashanti, Eastern, Western, & Northern as of 2007), representing major ecological

and social-cultural zones of Ghana. The study used a consumer survey, in-depth interviews, focus group discussions, school visits, and structured observations to collect data (450 mothers, 250 male neighbors were administered the consumer survey; 30 mothers were interviewed; 10 groups of mothers participated in focus group discussions; 45 schools were visited; and 500 mother/child pairs and their households' hand washing-with-soap practices were observed).

The findings were that lack of water, lack of soap and soap accessibility, and hand-washing with soap simply not being a habit were some of the barriers to hand-washing with soap, while nurture (caring for children), disgust from any sign of contamination, and social concerns (cleanliness as an indicator of status and good health) were some of the drivers for practicing hand-washing with soap. The social marketing campaign therefore focused on promoting hand-washing with soap as a behavior that addresses the peoples' concern for neatness and cleanliness and not necessarily disease preventing or health promotion.

VERB

VERB (Wong, Auhman, Asbury, Bretthaure-Mueller, McCarthy & Londe, 2004) was a nation-wide social marketing campaign aimed at increasing physical activity among the youth in the USA. It targeted children 9-13 years old, mothers aged 26-46 years old, teachers, and youth program leaders. VERB used consumer research to determine current 9-13 year old children's behavior and what factors motivate and hinder parents to incorporate physical activity into the lives of their children. Focus group discussions, home-phone interviews, and document review were some of the methods

used to collect data. The sample group was segmented by gender, ethnicity, location, and other demographic indicators.

Security concerns, such as children taking walks alone, expressed by parents were one of the barriers identified, while the perception of physical activity as fun and enjoyable were some of the motivating factors. The social marketing campaign focused on each segmented group, and messages were specifically tailored to suit the needs of each target group. The results indicate that VERB campaign had a positive effect on children's participation in physical activities. There was a positive association between VERB campaign messages and children's attitude about the benefits of being physically active. I now turn to a discussion of the marketing mix (*product, price, place, promotion*) that is at the center of any social marketing initiative.

Product

The behavior that a social marketer wants to influence individuals' to adopt, adapt, maintain or reject is what is defined as "*the product*" (Kotler & Zaltman, 1971). The challenge, however, is to ensure that the behavior being promoted is doable. How then does a social marketer come up with a *product*? According to Maibach, Rothschild & Novelli (2002), the benefits of the advocated-for behaviors are what constitute "*the product*". Taking school feeding programs as a working example, nutritional benefits, educational benefits, and community benefits could be given as examples of benefits that can inform "*the product*". In order for social marketers to ably articulate the benefits, they should carry out consumer and environmental research (Maibach et al., 2002; Kotler, Roberto & Lee, 2002; Andreasen, 1995). In other words, any initiative that uses

social marketing as its planning tool should recognize the central role that individuals play. Putting the consumer first will enable the social marketer to comprehend the benefits as well as barriers of the advocated behavior. As Andreasen puts it, " the social marketer's first goal is to get inside their target market's psyche and understand why these people are doing what they are doing and what their perceptions are of the costs and benefits of the behavior change the marketer is attempting to achieve" (Andreasen, 1995, p. 49).

Carrying out consumer research will not only help the social marketer comprehend the factors that contribute to lack of motivation by the consumer to embrace the advocated-for behavior, but also provide in-depth knowledge concerning the barriers that the consumers perceive as inhibiting them from adopting, adapting, maintaining or rejecting the behavior (Kotler, 2002; Andreasen, 1995). Kotler (2002) further elaborates this process by highlighting the need to conduct a SWOT analysis (Strength, Weakness, Opportunity, and Threats) that will help in answering the process question "where are we?" and "what's in it for the consumer that he/she stands to benefit?"

Research methods that can be utilized to uncover barriers and benefits are focus groups, individual interviews, observations, document analysis, and surveys (Maibach et al., 2002; Andreasen, 1995; McKenzie-Mohr, 2002). The randomized consumer research that used structured observations, a quantitative survey, in-depth interviews, and focus group discussions carried out in Ghana relative to hand washing with soap revealed that nurturance, social acceptance, and disgust of the smell of excreta were the motivators of the behavior whilst lack of water, soap and soap accessibility, and hand-washing with soap not being a habit were identified as constraints (Scott, Curtis, Rabie & Garbrah-

Aidoo, 2007). Given this information, a social marketer would come up with a *product*

that highlights motivating factors for practicing hand-washing with soap whilst taking

necessary measures to minimize the barriers. A *product* in a social marketing initiative

manifests itself as an idea, a practice, or a concrete object (Karg, Drechsel, Amoah &

Jeitler, 2010). In the case of the Ghana hand-washing promotion initiative, cleanliness

and neatness were seen as uniting the three motivators for adopting hand-washing with

soap (Scott et al., 2007). A label/brand can then be placed on this *product* to make it more

appealing to the target group because it portrays more immediate rewards (Keller, 1998).

For example, "VERB" was the brand name for the VERB campaign. VERB is an action

word and the campaign wanted to underscore the fact that "it's what we do that matters"

in order to reinforce physical exercise among the youth.

Furthermore, a social marketer segments the target population when trying to

identify barriers and benefits because people are different and have diverse lifestyles,

behavior, and values (Kotler, 2002; McKenzie-Mohr, 2002; Grier & Bryant, 2004).

Demographic information such as age, sex, social economic status, ethnicity, and current

behavior are among the criteria that are used to divide the population into subgroups. The

VERB campaign, aimed at increasing and maintaining physical activity among children

aged 9-13 years in the USA, segmented the target population by age, influencers'

(mothers, teachers, youth program leaders) activity level, ethnicity, and gender (Grier and

Bryant, 2004). Population segmentation acknowledges that people are different and that

decision making is contextual (Maibach et al., 2002).

However, in trying to understand the barriers, it is important to recognize

competing behaviors. There are always one or more competing behaviors to the behavior

being advocated for (Andreasen, 2002; Andreasen, 1995). A social marketer can find out

more about competing behaviors by carrying out consumer research (Maibach et al.,

2002). This research focuses on the competing behaviors within the environment where

the target population is bound to make its decisions. For example, in the VERB

campaign, watching television, playing video games, and using the computer were among

the competing behaviors that were identified. The social marketer therefore needs to

articulate a marketing strategy that will overcome the competition and influence the

target population to adopt, adapt, maintain or reject the advocated-for behavior. This is

done by enhancing and maximizing benefits, while at the same time addressing barriers

so that individuals perceive the behavior as something worthwhile.

Price

Enhancing and maximizing benefits so that consumers are influenced to adopt,

adapt, maintain or reject a behavior can be done by minimizing perceived barriers.

Overcoming barriers can be understood as the *price* that individuals have to pay if they

decide to take on the behavior being advocated for. The cost of a behavior can either be

economic, psychological or environmental (Maibach et al., 2002; Kotler & Zaltman,

1971)). In other words, there are monetary and non-monetary costs associated with

adopting, adapting, maintaining or rejecting a behavior. These costs could either be

tangible or intangible (Kotler et al., 2002). In the VERB campaign, the financial costs

related to being physically active included gymnastic fees and the *price* of dance classes,

while an example of the psychological cost was the tweens' discomfort in participating in

physical activities. Lack of sidewalks in the neighborhood could be an example of

environmental costs (Wong et al., 2004). The Ghana hand-washing initiative identified cost of water and soap as some of the financial barriers, while lack of pit latrines within the vicinity of the target groups was perceived as an environmental obstacle (Scott et al., 2007). The *price* that one pays for the perceived benefits is viewed from the consumers' perspective (Grier & Bryant, 2004). Once costs are identified, the next step is to develop strategies that will minimize the costs and enhance the benefits (Kotler et al., 2002).

For example, in the Ghana hand washing initiative, one of the major concerns of the target population was lack of water. According to Scott et al. (2007), about 62% of Ghanaians pay for water that is sourced from public facilities. Only a small percentage of people have water taps inside their compounds. A social marketer would therefore try to minimize this barrier by working in partnership with organizations or government departments that are responsible for ensuring that people have access to clean water. Advocacy for household water connections could be a major part of a social marketing campaign aimed at increasing hand-washing with soap that has lack of water as one of its perceived barriers. Having household water connections would thus reduce the monetary cost of acquiring water. Kotler et al. (2002) note that decreasing the monetary costs to acquiring a behavior is one of the strategies for minimizing barriers. The health belief model proposes reducing perceived barriers through "reassurance, correction of misinformation, incentives, assistance" (Maibach et al., 2002, p. 49). Minimizing barriers will enable the consumer to realize that "aha, it's not so costly after all".

Place

Making the product available is one of the essential elements of a social marketing initiative. This implies that the *product* is available at the right time and *place* (Maibach et al., 2002; Andreasen, 1995; Kotler et al., 2002; Kotler & Zaltman, 1971). Bringing the *product* closer to the consumer helps "reduce costs, remove access barriers, and increase perceived benefits" (Kotler et al., 2002, p. 243). According to Kotler et al. (2002), a *place*; "is where and when the target market will perform the desired behavior, acquire any related tangible objects, and receive associated services" (p. 243). In other words, a social marketer should ensure that the *product* is available at the point of decision making. Curtis (2001) suggests that a behavior that should soon become a routine can be introduced at life-change events and he cites the school as an example of such life changing events (as cited by Scott et al., 2007). Curtis (2001) further notes that it is at this time that people are more likely to be influenced to change their behavior (as cited by Scott et al, 2007). A social marketer could take advantage of such occasions and introduce or reinforce a behavior. For example, the Ghana hand-washing promotion targeted schools as one of the *places* to market hand-washing with soap. Additionally, public and household toilets were another *place* where the behavior was marketed. Soap and water were placed at strategic *places* so that people could be cued to action immediately after visiting the toilet. The VERB campaign used several *places* to advocate for the behavior. These included children's museums, schools, public parks, and neighborhood associations.

When choosing a place to market behavior, there are a few factors that direct that decision. According to Kotler et al. (2002), a social marketer needs to ensure that the

location is closer to the target group, it is appealing and convenient in comparison to other competing behaviors, and it is at a point where decisions are made.

Promotion

People don't buy products. They buy expectations of benefits.

-As cited by Kotler et al. 2002

Once the bundle of benefits are packaged as a *product,* and the *price* and *place* are determined, social marketers should promote the *product* so that the target audience is aware of the behavior, motivated to experience it and, most of all, inspired to take action (Kotler et al., 2002). Kotler (2002) cites *message* and *media* as the two main components of *promotion*. On one hand, he defines a message as comprising the explanation of the behavior (what, why, and how). On the other hand, he views media as the means of communication (where, when, and by whom). Looking at the hand-washing promotion in Ghana, the message that was conveyed to the target audience was that "hands are only truly clean if washed with soap," and the means of communication was through the mass media, direct consumer contact, and district level programs (Communication initiative network, 2008, para.4). Drawing parallels with the health belief model, *promotion* aims at enhancing the benefits and counteracting the barriers whilst at the same time highlighting the susceptibility and severity of the target audience to the consequences of ignoring the behavior. The Ghana example enhances nurture and acceptance while highlighting disgust and social concerns as some of the consequences of ignoring the behavior.

Effective messages are created by examining in detail the key message that needs to be conveyed, the target audience, the communication objectives, the long-term benefit

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for adopting the behavior, evidence that supports the claim that the promoted behavior is beneficial to the target audience, the opportunities that are there, and how the message can be positioned so as to appeal to either the rational, emotional or the moral aspects of the target audience (Kotler et al., 2002). This is what is sometimes called "the creative brief".

When examining the target audience, it is important to pay attention to their stage in the behavior-change process and then tailor the message accordingly. For instance, there may be individuals who are at the initial pre-contemplation stage (not really aware of the behavior or are aware but have not given it much thought), at the contemplation stage (are aware of the behavior and are thinking about it), at the preparation stage (they have given much thought to the behavior and are ready to adopt, adapt, maintain or reject it), or at the action stage (they have taken on the behavior). At each stage, the social marketer needs to tailor the message accordingly. For example, if the target group is still at the pre-contemplation stage, messages that are educative and advocate for the behavior will be the most influential. In other words, it is essentially propaganda that is needed because the challenge that the social marketer faces here is to not only make the target group aware of the behavior, but to also make them view the behavior as an acceptable addition to their routine. At the contemplation stage, it is mainly a cost/benefit analysis that the target engages in. The social marketer therefore needs to focus on reducing the costs while at the same time enhancing the benefits. Finally, the action stage requires the social marketer to convince the target group that they can maintain the behavior (self-efficacy).

Conclusion

In summary, the continuity of school feeding programs in low-resource countries is critical for the benefit of poor and vulnerable children. There are educational, nutritional, and economic benefits that in the long term enhance well-being. Currently, school feeding programs in many low-resource countries rely on external support from donors. Sadly, donors are now pushing for host governments to develop a transition plan from external to localized support.   However, for school feeding programs to continue in a more sustainable manner, there is need to deliberately reconcile the social, economic, and ecological imperatives of sustainability. This requires de-materialization and re-socialization strategies. One way of achieving this is through the involvement of community members in the planning and implementation of school feeding programs. Motivating community members to participate in school feeding programs will require them to be convinced and inspired that it is beneficial to them to be involved in school feeding. Social marketing, a planning tool that uses traditional marketing principles and techniques to influence target behavior, has demonstrated success in influencing behavior change. The next Chapter of this dissertation is the study design and research methods which is an elaborate consumer research plan.

CHAPTER 3

STUDY DESIGN AND METHODOLODY

Approach and Rationale

This qualitative study explored social marketing as a potentially useful strategy for planning school food programs in Malawi. Specifically, the study provides the groundwork for the design of a social marketing campaign aimed at eliciting community participation in school feeding programs, thereby contributing to the efforts for continuing such programs which are a necessary intervention to ensure that poor children continue to access education.

Using social marketing methodology, this research study specifically answered the following questions:

1. What are the barriers to community participation in school feeding programs?

2. What are the benefits of community participation in school feeding programs?

3. How can barriers to community participation be minimized and benefits highlighted to elicit community participation in school feeding programs?

4. How can school feeding programs be framed to promote community participation?

5. What are the likely channels of communication that can be used to enhance community participation in school feeding programs?

Purpose of the Research

The purpose of the study was to inform the design of a social marketing campaign aimed at eliciting community participation in school feeding programs in Malawi,

thereby contributing to the efforts of making such programs sustainable. This was done by following social marketing principles, which are to first start with assessing the barriers and benefits to community participation in school feeding programs, and then investigating how the importance of such programs can be framed and communicated to promote community participation.

Study Design

This study adopted a qualitative research methodology. Uncovering barriers and benefits and determining how to frame the message plus choosing channels of communication was done through focus group discussions and in-depth interviews at Malembe Primary School in Lilongwe Rural West Educational District. Focus group and individual interviews, in general, allow for flexibility to generate detailed data that offer helpful insights when one is interested in having an in-depth understanding of an issue that might not be possible when using other methods (Locke, Spirduso & Silverman, 2007; Marshall & Rossman, 2010; Patton, 1990). In addition, focus group discussions generate forms of data that are not easily obtained through either individual interviews or participant observation (Morgan, 1997; Krueger & Casey, 2009).

The Malembe Primary School was identified because it has initiated a school feeding program with no external financial support. A newspaper article that highlighted what the community of Malembe School is doing in order to ensure that children have access to at least one meal a day in school is what inspired me to carry out this study at this particular school. Once the school was identified, my next task was to establish what constituted the "community" of Malembe primary school. As already discussed in the

literature review chapter, even though Sapin (1990) observes that a community generally

holds something in common and is of a common identity (as cited by Gilbert &

Tounkara, 2002), this is not the way community is viewed in this research. My definition

of community acknowledges diversity within groupings of people. The school

community for this study, then, meant all feeder villages of Malembe primary school

(children from these villages learn at the school). Furthermore, community can be

perceived as a process through which people take initiative and collective action (Gilbert

& Tounkara, 2002). This is a common understanding of community in Malawi. I am

therefore interpreting community in this research as a product of shared space (children

access same school, come from same villages) and a process of collective action.

Setting

Malembe Primary School is a school within Dzenza zone Lilongwe Rural West

educational district. It is located in Lilongwe City north area 25. In 2009-2010 academic

year, the school had an enrolment of 1,942 pupils of which 1,112 were girls and 830 were

boys. There were 59 teachers of which only 2 were male. Thus, at the time of the study,

the pupil teacher ratio at this school was 34:1. There was no water supply within the

school premises and water used at this school was drawn from a nearby village well

about 1500 meters away from the school. There were only 11 pit latrines, 6 for girls and 5

for boys. Pupil/toilet ratio was a staggering 185:1 for girls and 166:1 for boys. The pit

latrines were not thatched. There were also only two blocks (classroom buildings) with

two classes each at the school. During the time of conducting this research, UNICEF was

in the process of constructing additional pit latrines and classroom blocks. It was also

rumored that UNICEF had plans to dig a borehole (a type of well) at the school.

Malembe primary school is surrounded by twenty four villages with four main group

village headmen, namely, Kuliyani, Malembe, Chitukula, and Bvunguti, and all these are

under the Traditional Authority of T/A Chitukula. Below are some pictures taken from

Malembe primary school.

Figure 3.1: Classes at Malembe school

<u>Sample</u>

Teachers, parents, village leaders, mother group's members, the elderly, Parent

Teacher Association (PTA)/School Management Committee (SMC) members and school

children were the key informants in this study. I had research assistants who helped me in

data collection, and, even though I was not physically present in the field, I was actively involved in shaping the interview guides and I providing insights for further probing questions. Moreover, I am deeply familiar with the context of this particular school, because I once worked as a district education manager in Lilongwe Rural East under the same district assembly with Lilongwe Rural West where this school is located. I worked closely with the district education manager for Lilongwe Rural West when developing the education section of Lilongwe district assembly social economic profile.

A total of seven focus groups (participants of 8-10 people) were conducted with teachers, parents, mothers' group members, village leaders, the elderly, Parent Teacher Association (PTA)/School Management Committee (SMC) members and school children. In addition, a total of seven individual in-depth interviews (one member from each category of participants) were also conducted. Focus group and interview guides derived from the research questions were used to guide the discussions (see Appendix A for detailed interview guides).

However, it should be noted that the best one can do in an exploratory study like this is to provide the methodological framework and let the design shape itself as the study evolves. Lincoln and Guba (1985, p. 225) caution that "the design of a naturalistic study… cannot be given in advance; it must emerge, develop, unfold" (cited by Locke, Spirduso, & Silverman, 2000, p. 252). Initially, I wanted to do a comparative study by also conducting focus group and individual interviews at a school where World Food Program had suspended its feeding program. However, as the study evolved, I realized that the needs of these two schools were different and a social marketing campaign would

be meaningful if I specifically channeled it towards addressing the unique needs of a particular school, hence my decision to focus on just Malembe Primary School.

Sample selection and ethical issues

With the help of the zonal Primary Education Advisor (PEA) and the District Education Manager (DEM) and, working within the already established local structures, the research assistants facilitated a meeting where the PEA briefed the village headmen of my impending study and informed them that the study would require a one hour face-to-face interaction with the researcher and, in the case of focus group discussions, with fellow participants (about 8-10 members) and the researcher. Interviews and focus group discussions were to be tape recorded to facilitate data analysis and that, at any point during the study, they were free to withdraw their participation without prior notice. The same procedures were followed with teachers, the elderly, parents, mothers' groups, village leaders, PTA/SMC members and pupils. Participation in the study was voluntary, and each participant who was willing to take part in the study signed an informed consent letter that had been translated into Chichewa, the vernacular language. The translated informed consent letter was read out loud for the sake of those who were unable to read and write, and this category of participants endorsed the consent letter by thumb stamping. There were a total of 12 participants who thumb stamped their letter of consent (2 of the eight members of mother group, 6 of the 9 elders, 1 of the 10 village headmen and 3 of the 10 PTA/SMC members). Below is a table listing the total number of participants in focus group discussions and individual interviews.

Table 3.1: Number of participants

Category of participants	Focus group participants	Individual interview	Total by role group
Teachers	10	1	10
Elders	9	1	9
Pupils	10	1	10
Mothers' groups	8	1	8
PTA/SMC	10	1	10
Parents	5	1	5
Village Headmen	10	1	10

Data collection method and analysis

Focus groups and individual interviews were tape-recorded, and these records were transcribed verbatim and translated into English. All the focus group and individual interviews were conducted in Chichewa. A total of 79 pages of transcription were generated. In terms of analysis, I relied on principles of grounded theory (Corbin & Strauss, 2008; Wolcott, 1994), even though I was working within an already established social marketing framework. Grounded theory, as articulated by Glaser and Strauss, focuses on generating theories for areas of study about which little information is available (Glaser & Strauss, 2008). The analysis was consistent with this principle as I worked with the word-for-word transcribed data and identified ideas and concepts that could be explained conceptually. I used these concepts as building blocks for the theory of promoting eco-san latrines as one way of minimizing barriers to community participation in school feeding program at Malembe Primary School. This grounded theory argues that such an approach will likely result in sustainable school feeding programs. When following this principle (moving from data to concepts), a deliberate process to build theory from data, the methodology is said to be grounded theory.

For this study, grounded theory was essential because, from the literature reviewed, information on the use of social marketing strategies in planning school food programs in low-resource countries is almost non-existent. Grounded theory provided an opportunity to generate theoretical constructs that will guide a social marketing campaign plan aimed at promoting community participation in school feeding program at Malembe Primary School and, perhaps, more broadly. I was, however, working with these data using the social marketing concepts (*product, price, place and promotion*) which were the core of the initial analytic framework. Working within these four broad categories, I did a line-by line analysis of the data. I used open coding, as it allows for micro-analysis in order to identify properties of ideas presented in the data. This helped me in organizing the data according to concepts that emerged. Through this process of micro-analysis, it was relatively straight forward to conceptualize the themes emerging.

From the open codes, I identified axial codes by making connections between the categories. Since open coding helped me to expand my analysis, I was able to identify commonalities within the codes that helped me to pull the data together again using these similar properties. I then used selective coding to tease out central categories that helped me in developing my theory. Throughout this process, I wrote memos to help in articulating my thoughts and what I was reading from the data. Corbin and Strauss (2008) note that the habit of writing memos helps move the analysis forward. These themes fed into the emergent theory of using a social marketing campaign that aims at promoting eco-san latrines as one way of minimizing the barriers to supporting the school feeding initiative highlighted by the participants in this study. I am optimistic that this campaign will enhance community participation in school feeding programs at this

school and, perhaps, be of use to other school feeding initiatives facing loss of donor funding and challenges to sustainability.

My position as a researcher

While working with the Ministry of Education in Malawi, I was entrusted with the responsibility of coordinating educational activities in one of the educational districts. My job involved developing education plans, coordinating educational activities, interpreting government policy to stakeholders, preparing budget estimates, and sourcing funds to implement plans articulated in the district plan, just to mention but a few responsibilities. These responsibilities required creating programs that would facilitate the implementation of government education policy. I recall that, during the process of developing programs, there was very little involvement of the beneficiaries of such initiatives. I worked mostly with primary education advisors to help me articulate such programs. The beneficiaries were merely informed of the initiative, and they were not part of the decision making process. Once everything was "figured out," we would then work together with the beneficiaries in implementing the initiative.

With this experience, I brought with me some prejudgments to the present study that might have impacted the way I framed the questions for collecting data and how I analyzed these data. I came into this study with a strong conviction that, due to the way initiatives are introduced and implemented, there is a "culture of dependency" that has been planted, to the extent that beneficiaries doubt their own capabilities, and they wait for outside "help" to resolve their struggles. I therefore approached this study with an assumption that community members are largely dependent on outside help and perceive

themselves as incapable of sustaining a program, even though they might have initiated it on their own. Embedded in this assumption is the notion of unworthiness and powerlessness. Consequently, I might have chosen group discussions and in-depth interviews that were more participatory but with pre-determined questions that might unconsciously facilitate praxis. Freire and Freire (2004) define praxis as the process of naming a problem, critically reflecting on it, and then carrying out actions. I wanted the community members to proudly take ownership of the initiative that they had started without any external support, to empower themselves, and to believe that they are capable of sustaining such initiatives even without external support. Thus, I wanted them to be liberated from the chains of dependency. Rossman and Rallis rightly observe that the theoretical framework that guides the critical humanism paradigm derives "from critical theory and postmodern perspectives" (2003, p.47). Critical theory asserts that there are dominant and oppressed groups in society, and it challenges that status quo. Programs that are imposed on the beneficiaries without actively seeking their participation in the decision making process are oppressive. From my experience working as a district education manager in Malawi, this is the general trend of how most programs are introduced in primary schools. Therefore, working from this perspective, my analysis may be viewed by others as an attempt to highlight gaps in the status quo and a deliberate challenge to that status quo.

Furthermore, as someone who studied in Malawian primary schools and at times went to school hungry myself (not necessarily because there was no food at home but rather because I was running late and had to skip breakfast in order to be at school on time), I came into this study with an insider status. This might both have negative as well

as positive influences on my analysis and the resulting findings. Foster (1994) notes that, although a common orientation can positively enhance rapport, other significant factors can make the researcher wear both hats of an insider and an outsider. In agreement, Wagle and Cantaffa concede that "identities [exist] in flux and that how one identifies is dependent on context" (2008, p.141). I at times identified with the experiences of the participants in this study at a very personal level.

Trustworthiness of Data

The authenticity of this research is supported by the use of multiple sources to collect data. My primary data sources were focus group discussions with multiple stakeholder groups, but there were also in-depth interviews with one participant from each group. This was one strategy for validating the discussions and expanding on key points raised. In addition, pictures were taken throughout the data collection process. Neuman (2007) acknowledges that photographs are used by qualitative researchers as one way among several other techniques to consistently record observations. The use of focus group discussions, individual interviews, and photographs helped me to triangulate the data and, as Rossman and Rallis (2003) point out, multiple sources of data enable one to holistically develop the narrative that emerges from the data collected. Thus, I was able to use all these sources of data to guide the social marketing campaign design.

Additionally, I used a critical friend to ensure credibility and rigor by having him listen to the tape-recordings of focus groups and individual interviews (he is a native Chichewa speaker) and then read the transcripts and listen to me as I talked about the themes and categories that emerged from my analysis. Rossman and Rallis (2003) outline

strategies for ensuring credibility and rigor when conducting research, and one of these strategies is the use of a critical friend. They point out that the "peer debriefer" helps keep an intellectual eye on the analytic process of developing an account of the issue of concern. As pointed out by Neuman (2007), the qualitative researcher's desire to be truthful and authentic can be achieved by "creating a tight fit between their understanding, ideas, and statements about the social world and what is actually occurring in it" (p. 120). My critical friend helped to keep the biases and preconceptions that I brought to the study in check by offering a more neutral and critical eye on the way I was reading and interpreting the data.

Limitations

The purposive sampling procedure limits generalization of findings, in a strictly probabilistic sense. Although I want to contribute to re-thinking the design of school feeding programs in low-resource countries at a global level, it will not be possible to speak with authority using results from this study. The findings from this study only apply to the target population and not even all the primary schools in Malawi. However, following the logic of comparison and contrast (see Kennedy, 1979; Rossman & Rallis, 2012), others may find the emergent theory of social marketing to promote community ownership of school feeding programs quite useful as they fashion similar campaigns in other contexts. The proceeding chapter will discuss in detail the findings from this research.

CHAPTER 4

FINDINGS

The purpose of this study was to inform the design of a social marketing campaign aimed at eliciting community participation in school feeding programs in Malawi thereby contributing to the efforts of making such programs sustainable. Data concerning the benefits and barriers of community participation in promoting school feeding program and concerning the channels of communication used within Malembe primary school community were collected by conducting focus group and individual interviews. The findings are presented in two parts. The first part, Chapter 4, highlights what the participants perceive to be the benefits and barriers to their participation in the school feeding initiative. Using these findings and the means of communication preferred by the participants, part two, as presented in Chapter 5, articulates a social marketing campaign plan that aims at minimizing the barriers outlined whilst at the same time maintaining visibility of the benefits of community participation in school feeding program. The findings documented here use both descriptive and analytic modes of communication as a way of presenting them. According to Wolcott (1994), descriptive qualitative data transformation is a mode of communicating the research results by way of "setting up the stage" so that the reader is free to make his/her own analysis alongside the researcher, if he/she so wishes. It is a method of presenting the data that puts the reader in the picture of what is going on without bias (as much as possible); the researcher's role here is to group the data (through the use of categories) and then provide evidence by using the interviewee's own words. The descriptive way of communicating data is a good way of trying to ensure trustworthiness of the research. Looking at the

assumptions that I brought with me when conducting this study, I feel descriptive communication can help to counter any biases that might still exist and instill in the reader confidence in the findings. In this case, at least providing data extractions in support of the categories identified offers "evidence" that I am not "making up stuff" which in a way "validates" the findings.

In addition, I also use the analysis approach to presenting research findings, which is rich, for it not only allows me to do an in-depth analysis, but I am also able to use my understanding of the situation by drawing from my own experience to enhance the analyses put forward. First, an elaborate description of how the initiative was conceptualized is presented and, as I do this, I tease out the overarching categories associated with benefits and barriers of supporting school feeding program as highlighted by the participants. As an attempt to further explore these data in a much broader sense, I discuss other categories that I identified that reflect on the benefits and barriers of community participation in school feeding program at this school and also highlight the channels of communication that are commonly used in this community. Throughout this discussion, direct quotes from the participants will be used to support the analysis.

An idea is born at Malembe primary school

Setting the context

Malembe primary school is surrounded by villages but it is also partially in the township of Lilongwe, the capital city of Malawi. Thus, the school is semi-urban and, as a result, it finds itself isolated from programs that deliberately target rural schools. For instance, even though World Food Program has Lilongwe Rural West as one of its impact

areas where it supports school feeding program, Malembe is not one of the schools

targeted. World Food Program deliberately targets schools in the rural areas but, because

Malembe primary is a semi-urban school, it doesn't fit this criterion, although the

teachers at this school identify hunger as one of the reasons that some pupils absent

themselves from school. When the teachers were asked to explain how the idea of

feeding pupils at school started, one of them said,

> When we ask the children, they say 'I haven't eaten, I stayed away from school because I was told to look after cattle, to take care of the garden and also because *I was hungry*.' So when we sat down and examined what goes into school feeding, we discovered that its maize, soya and so this isn't difficult. So we started farming. The community donated land. The main problem here is poverty so with the issue of food, we thought we can help (focus group T, 1/11/2011).

Taking care of cattle is an activity that is performed in the rural area, and it can be

strange to see cattle kept in the township of Lilongwe. This shows that Malembe

primary school caters for children who are living in rural areas and yet, programs that

WFP school feeding supports are out of reach for these children. There is a genuine

struggle with hunger among the populace of this community. Concurring with the

teachers, a member of a mother group (a grouping of mothers mandated by the school

community to ensure that girls enroll and persevere in school) made this observation:

> Our job involves monitoring the children and when we ask why some of them are not coming to school, we observed that it is because of *hunger* (focus group MG, 1/7/2011).

Phil (not his real name) one of the pupils at the school said, *"I ate nothing"* in

response to a question posed to him regarding what he ate that morning before coming

to school.

Thus an idea was born to start a feeding program at the school. The teachers decided to start a school feeding program that depended solely on community participation. They observed that maize and soya, the main ingredients that go into a feeding program, are not difficult to cultivate. They consequently mobilized mother group members to spearhead the advocacy campaign for a community driven school feeding program. The picture below shows some of the members of the mother group during the focus group discussion.

Figure 4.1: Focus group with mothers

One of the members of the mother group recalls being summoned by the school administration where they were asked to spearhead the school feeding program:

> We were called by the school administration and asked to spearhead the program… We just heard about this program from the teachers but we warmly welcomed this idea because we know this will help the children to work hard in school and this will improve performance of the children in class. We are not happy when *the children are hungry* (focus group MG, 1/7/2011).

Among the reasons advanced in support of introducing school feeding at this school was to counter high absenteeism and dropouts that many participants attributed to hunger. Parents who participated in the focus group highlighted their struggle to ensure that their children eat breakfast before going to school:

> We struggle and just send children here without eating…many parents are having financial difficulties and cannot afford to provide breakfast every day to their children… many children come here hungry so we want them to eat here so that they can concentrate in class. Sometimes children refuse to come to school because of hunger (focus group P, 1/10/2011).

One of the benefits that this initiative offers is its ability to level the playing field for all students by ensuring that they at least have access to one nutritious meal. As noted earlier in the literature review section, school feeding programs improve cognition and retention and contribute to achieving equity. By relieving short-term hunger, school feeding programs enhance cognition, and this improves the children's ability to concentrate in class, thereby facilitating learning. As such, school feeding programs are a convincing avenue for achieving equity (Jukes et al., 2008; see also Sen, 2009). This observation compels me to explore further this category of school feeding as an equity mechanism.

School feeding an equalizing mechanism

Participants in this study identified school feeding as an opportunity for the pupils to start at an equal footing, at least where food is concerned:

> We want our children to have a bright future. We are of different social economic status. Others come to school hungry and so we want them to at least have a meal at school. Kids run away from school because of hunger but if they eat at school, they won't run away from school (focus group PTA/SC, 1/18/2011).

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School feeding is perceived by the participants as having the potential to erase the social-economic differences among the pupils during the time that they are in school. By giving all pupils the maize/corn-soya porridge, this initiative is likely going to promote feelings of **sameness,** and this can have a positive effect on the pupil's self-esteem and self-worth development. In this particular case, **sameness** does not denote identical. The pupils just want to be similar by sharing commonalities but this does not in any way denote equivalent. The pupils, as well as their teachers and parents, imagine a situation where every pupil, regardless of background, is given an opportunity to concentrate in class by having the hunger issue out of the way (at least during the time children are in school). Eating at school is an activity that can ably translate this imagination into reality. Pupils who participated in this study showed eagerness to have the program started so that their friends who dropped out of school could come back. In response to the question, "what are your thoughts concerning school feeding?" pupils in the focus group discussion said:

> Some of our friends dropped out because of hunger and some also run away from school but now they can stay and concentrate in school…I heard that they will start here and we are happy because some of our friends come here hungry so they can eat (focus group PP, 1/21/2011).

Pupils who do take breakfast before coming to school feel bad that there are some pupils among them that come to school hungry. Throughout the focus group discussion and the individual interview, pupils portrayed **empathy** towards their less privileged friends. Empathy is the ability to identify and understand the other's feelings or emotions. These pupils had the ability to understand the feelings and emotions that go with hunger because, on other occasions, they too came to school hungry. Kate (not her real name) a standard eight pupil said:

> I usually miss breakfast because I am in standard eight and come to school very early to prepare for examinations. We just study during break. Sometimes I take cassava but sometimes I bring no food because my parents have no money. I eat nsima when I get back at home at around 2:20 pm (Individual interview PP, 1/25/2011).

Standard eight is the last grade at the primary school level, and pupils write Primary School Leaving Certificate (PSLC) examinations (high stakes examinations) that determine their future. The pupils who do well during this examination proceed to national and district secondary schools (conventional secondary schools) whilst those that do not fare well end up being selected to community day secondary schools. The pupils who fail this examination cannot proceed to get a secondary school education. According to 2011 Malawi National Examinations Board (MANEB) press release concerning the PSLC examination results, out of the 205,739 candidates who sat for the examination in 2011, only 141,664 pupils passed, and slightly over 59,000 pupils were selected to conventional secondary schools (Malawi voice, 9/9/2011). This means that the rest have to make do with the community day or private secondary schools. On one hand, it is not inspiring for pupils to go to a community day secondary school because of the many challenges that these schools face. Many of these schools do not have their own space and structures, and as such they operate on primary school premises. This means that they operate in the afternoon because, in the morning, the primary schools are in session. Additionally, most of the teachers in community secondary schools are primary school teachers with no training in secondary school teaching methodologies and content. On the other hand, private secondary schools charge very high tuition fees and for a child who comes from an economically challenged family, enrolling at this type of school is financially impossible. As a result of the few spaces at conventional secondary schools,

teachers require standard eight pupils to work extra hard in order to be competitive. Standard eight pupils go to school as early as six o'clock in the morning and only get back home around 2:20 in the afternoon.

In addition to the benefit of addressing short term hunger, thereby making it possible for all children to have a chance to concentrate in class, a school feeding program also has the potential to bring hope to the hopeless. Kelvin (not his real name) said:

> I don't eat anything at home because the food is scarce. Sometimes a month goes by without eating [breakfast]. Sometimes I have to do piece work to raise some money to buy food (focus group PP, 1/21/2011).

It is also interesting to note that the pupils who get to school without eating breakfast did not cite hunger as a factor because they "trained" their body to ignore the feeling of hunger and had gotten used to it. When Phil was asked to explain what he feels when he gets to school without eating breakfast he said, "*I feel nothing*". When probed to clarify his answer he said, "*I am used to it* [feeling of hunger] *now. There is no money*". The same feelings of **despondency** were noted during the parents' focus group discussion. One of the parents commented that, "*we struggle and just send children to school without eating*". Considering that most households in low resource countries, including Malawi, live below the poverty line or on less than a dollar a day as discussed earlier in the literature review, these feelings of hopelessness are depressing not only to the poor, but to those pupils who can afford to eat breakfast before coming to school as well because they too empathize with their friends. The school feeding initiative has the potential to bring hope to the hopeless. School feeding is an example of a safety net program, and, when well designed, safety nets have the potential to not only protect the

poor and the vulnerable from circumstances of despair, but to also transform such situations to ones of hopefulness (IATT, 2008). One of the reasons that the participants provided as the rationale for starting the feeding program was to ensure that all children have access to at least one meal at school. This initiative focuses on addressing social discrimination and exclusion. The poor will be accorded a chance to access a meal which will directly impact their cognition.

Furthermore, there were some pupils who do not eat breakfast before coming to school but are fortunate to have parents/guardians who give them money so that they can buy food at school. When the pupils were asked what kind of food they buy at school, some of them said, *"I buy freeze pops (Popsicle)… I buy freeze pops or sometimes fritters"*. Freeze pop/popsicle is colored fruit-flavored liquid that is left to freeze usually in a tube-like plastic paper. Although freeze pops do provide some calories, they do not provide all the nutrients that the pupils need, and it is a poor food choice. The provision of soya/maize blend porridge at school ensures that pupils eat a nutritious meal and can also be used as an avenue to counter poor food choices. Teachers pointed out that the program will make it easier for them to teach some topics that deal with food and its nutrients because pupils will be in a position to relate nutritional value to the food that they have actually eaten at school.

In addition to the school feeding program being an equalizing mechanism, the participants also viewed this initiative as an opportunity for them to provide local solutions to the challenges they face and, in so doing, collectively build their community. It was remarkable to note that pupils were eager to have this program started, and they raised critical points during the focus group discussion. One of the pupils asked this

question, *"What happens when we run out of flour for making porridge"*? In response, another pupil gave this reply, *"There is a plot where our parents are growing maize so we will get more from the maize harvested from there"*. I was intrigued by the use of "our" in reference to parents working in the garden where they were growing maize and soya for the feeding program. "Our" is a strong word that denotes open ownership. It's a word that indicates that something belongs to everyone. I now turn to an elaborate discussion of this theme "school feeding as an avenue for community bonding".

School feeding a bonding mechanism

Human bonding is a process of developing a close relationship commonly observed among family members or friends. When the school administration requested the mother group members to advocate for the introduction of a school feeding program at the school, they were told to present this request to the village headmen:

> We will do what the chief says. If we are told to contribute money to rent plots for harvesting, we will do it. If the chiefs ask us to go and cultivate, we will do that. We will do what the chief says. We look to the chief. Leadership is with the chiefs (focus group MG, 1/7/2011).

The chief is a powerful gatekeeper (note that I am using the words village headmen and chiefs interchangeably). If any initiative has to be sustained, it has to have the blessing of the chief. I would like to use the analogy of the family to illustrate this point. A typical family in Malawi (and probably in many parts of the world) is comprised of the father, mother, with or without children. Then there are aunts, uncles, cousins, and grandparents who are also part of this family. The father is considered the head of the family, and he influences and controls most of the decisions. However, the mother is regarded as the

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heart of the family. Issues are first presented to the mother so that she scrutinizes them and either presents them herself to the father or offers advice on how to present the issue so that the request is favorably considered. I remember when I was 13 years old; I wanted a new pair of shoes. I told my mother who advised me to present my request to my father on a Saturday when he was relaxing at home and not during the week as he usually came home exhausted from work. I did as advised, and it worked! My father bought me a new pair of sneakers.

The approach that the school administration used when presenting their desire to have a school feeding program is similar to that used in many families in Malawi. They approached the mother group members who are "mothers" for the community, and consequently the school administration were advised to present their request to the chiefs. This demonstrates to me that there are roles and responsibilities undoubtedly defined for members of the community. When the members of School Management Committee (SMC) and Parent Teacher Association (PTA) were asked what they envision to be their role in this initiative, they said:

> We will work hand in hand with the village headmen because it's the chiefs who have people… The village headmen assign duties, like each village has a specific role, one village is responsible for preparing the land for planting, another village for weeding, and yet another for applying fertilizer, harvesting so on and forth and our duty is to ensure that this is followed. So we will work closely with the village headmen (focus group PTA/SC, 1/18/2011).

In agreement, when parents were asked what role they play in this initiative, they said, *"We help at the garden. When the chiefs ask us to go to the plot, we do that. We have planted maize and soya. So we are helping… we will wait for the chiefs to choose who will cook and we are ready to cook so that children should eat"*. Chiefs are gatekeepers

and decision makers just like fathers in the family, and, the community members are like children in a family. Parents, pupils, members of SMC and PTA do whatever the authority says. If the chiefs grant permission, then everyone will be on board. This is an important observation because the introduction of school feeding program has the potential to cement this relationship.

Understanding the current context within which the new initiative will be introduced is encouraged when using social marketing strategy because such knowledge provides an avenue to use already familiar practices to positively influence the new behavior that the social marketer wants the target population to adopt, adapt, maintain or reject. Therefore, it will be worthwhile to deliberately target chiefs when developing promotional messages for the social marketing campaign that will result from the findings of this research. It is my observation that willingness to participate in any initiative depends on the chief's approval and guidance. It is imperative to introduce initiatives through the village headmen so that the program has full support of the community. Examine the response given by the village headmen when they were asked to explain what happened in order for them to decide to start a feeding program at this school:

> Teachers were concerned about high absenteeism and they wanted to find out why the children were not coming to school. Are the kids not interested in school? So teachers called for a meeting for village headmen and parents. So we told them that these kids come from poor families so they are sent to school without food. Yet there are other parents who are well-to-do and they do give their children food before they come to school. And so for us to equalize, we decided that we should contribute flour for making maize porridge at school. But when we asked ourselves, are we going to be able to keep up with this suggestion? So we said no, let us find land, so we can plant maize. We found land, but had problems to get seed, we struggled and got this but our worry is on where we get fertilizer to

apply to the maize because for maize to be strong, it needs fertilizer. So if you ask us how this idea started, this is how it started (focus group VHM, 1/ 19/ 2011).

The village headmen presented the initiative in a voice that demonstrates total ownership. This was precisely what the mother group members hoped for when they advised the school administration to present the idea to the chiefs first. The reasons for absenteeism and the solution were presented from the chiefs' and the parents' point of view. It is classic in Malawi for anyone who wishes to interact in any way with the people of particular village(s) to first seek permission from the Traditional Authority (T/A). The T/A is the overseer of several village headmen. The permission granted by the T/A is a gateway to the village headmen. One can only approach village headmen if the T/A has given approval. The village headmen then have to give permission for the one seeking to interact with the villagers to go ahead and approach the villagers. It is essential to note that in Malawi the chieftaincy is an important institution in the provision of public goods and services. There cannot be any development at the local level without the participation and approval of the chiefs. This explains the participants' phrases, *"leadership is with the chiefs… we will do whatever the chiefs tell us… it is the chiefs who have people"*. I observed with curiosity that the village headmen not only presented what they propose to do to address the issue of hunger, but they also articulated potential problems that this initiative might face. I will now turn to a more elaborate discussion of some of the barriers to community participation in school feeding program as pointed out by the participants.

Uncovering potential barriers

On one hand, the assigning of roles to specific villages enables the whole community to take part in contributing efforts to make the initiative work. On the other hand, this approach has the potential to expose "**cooperation gaps**" within the community. For instance, as noted earlier, the villages were assigned specific roles, "*one village is responsible for preparing the land for planting, another village for weeding, and yet another for applying fertilizer, harvesting so on and forth and our duty is to ensure that this is followed*" (focus group PTA/SC, 1/18/2011). Unfortunately, there were some villages that did not fulfill their role in a timely and coordinated manner. When teachers were asked to explore potential challenges in the implementation of the initiative, they said:

> A problem that we have already encountered is when we were weeding the plants. There was no coordination. It took time to finish weeding. The people assigned the task couldn't get together to do the weeding at once so this took time" (focus group, T, 1/11/ 2011).

There are steps that need to be followed when cultivating maize. First of all, the land is prepared either through intentional burning so that pests are killed and the grass is burned or by clearing it using hoes. This is usually done towards the end of the dry season (September-October). Thereafter, hilling of the land follows. Hilling is the making of ridges where maize seeds are eventually planted. Hilling, just like clearing of the land, is done manually. Immediately after the first rains fall around November-December, seeds are planted. It is recommended to weed the plants as soon as weeds grow so that the nutrients in the soil feed the maize plants only and not the weeds. The amount of yield, to a great extent, depends on the timely execution of weeding. If for some reason weeding is

delayed, the yield that can be gotten is compromised regardless of applying fertilizer. Application of fertilizer follows instantaneously subsequent to weeding and after a few days pass, it is highly advisable to raise the ridges. Maize is then harvested after it matures and has dried.

The successful cultivation of maize depends on timely implementation of all these steps outlined above, among other factors. Timely execution of these phases validates the teachers' concern as regards the lack of **coordination** during the weeding phase. **Coordination** requires that the work and activities of a number of individuals be performed harmoniously as parts of a whole in order to derive effective results. The villages were assigned specific roles in the cultivation of maize. Some villages were responsible for clearing the land, others for making ridges, planting, weeding, applying fertilizer, raising the ridges (otherwise called "banding") and harvesting as shown in the picture below.

Figure 4.2: Chart of roles of villages

Enhancing coordination among the villages should be one of the factors that the social marketing campaign addresses. There is an opportunity to do this by harnessing the role of the village headmen. The participants pointed out that they listen and get directions from the chiefs. In addition, some teachers made an observation that, "*when community sees an improvement in pupil attendance, they will be more committed and hopefully we won't have problems from the community that we had for example weeding will be better coordinated. But his program will also enhance our relationship with parents and the community".* Addressing coordination issues will consequently strengthen the **bond** among teachers and the community members. Therefore, it will be important to focus on the chiefs so that coordination among the community members in general is improved.

There are many factors that can be attributed to this "**cooperation gap**" within this community. One such plausible explanation is **miscommunication**. When the participants were giving an elaborate recount on how they identified the land where they were cultivating maize and soya, some of them said, "*we mobilized some funds and we are renting a piece of land"* However, when the village headmen were asked the same question, they said:

> We agreed to donate 1 acre each village headman. But others do not have land so even half-acre is fine. Those with enough land can even give 1 hectare but this will depend on how much land each chief has… we started this rather hastily so the piece of land is not much but plans are there for us to add a few more acres to the land that we have donated to the school (focus group, VHM, 1/19/2011).

Issues involving money are tricky and when communication is not clear, the likelihood of that message to be misinterpreted is very high. On one hand, parents, mother group

members and SMC/PTA were under the impression that they were renting the land. Yet the village headmen were claiming that they donated the land. When probed to elaborate on how much money they paid to rent the piece of land, the participants said, "*We don't know. We were just told that land has been identified*". When there is lack of **transparency,** seeds of doubt are planted. It is conceivable that the lack of coordination during the weeding phase can be attributed to lack of transparency in the way money for renting land for cultivation was handled. Weeding is a nuisance and, in many instances, people prefer to hire somebody to do the work in exchange for money. This is so because one not only needs to be extra careful when weeding to avoid damaging the plants, but also has to carry the weeds away from the garden to prevent them from growing again. It is possible that the villagers were expecting the money that they mobilized to also be used towards paying for hired labor to weed the garden.

As a follow up, during the in-depth interview with the village headman, a question requesting him to explain this misunderstanding regarding the land issue was posed to which he replied:

> I am the one who donated the land. However, there is nothing for free these days and so I charge a minimal fee. But for this year, I have given my land to the school for free but starting next year, I will require to be paid a minimal fee. This is about 3, 000 Malawi kwacha [18.47 USD]. This is the money that the community was asked to mobilize (individual interview, VHM, 1/21/2011).

Transparency can go a long way in instilling ownership, coordination, and pride in this initiative among the community members. One area that the social marketing campaign needs to attend to is the issue of clarifying what it means to donate something. The community members are directed by the chiefs to donate their time and labor towards this initiative, and this is an opportunity to explore the possibility of the chiefs doing the same

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where land for cultivation is concerned. It is particularly important to be clear as regards the land issue because, as the participants acknowledged, yield from 1 acre of land cannot feed 1,942 pupils the whole academic year, which translates to about nine months of schooling. The expectation is that, come 2011/2012 planting season, each village headman will donate land to be used for cultivating maize and soya for the school. Looking at the reasons advanced in support of starting a school feeding program, it is evident that some pupils come from poor families. Will it be feasible and sustainable to ask such families to contribute every year towards renting land for cultivating food for the feeding program? I am of the opinion that the chiefs would like to see the program continue. In their own words, the chiefs made this observation:

> These kids come from poor families so they are sent to school without food… looking at the complaint that was coming our way, we decided to help. We do not want these kids to be like us, we want them to be educated and so we will make sure that we make land available for the school to plant food for the kids. We are committed to this cause (focus group, VHM, 1/19/2011).

Working from this understanding, it will be important that the social marketing campaign focuses on this aspect to persuade the chiefs to donate land for free to the school for the feeding program.

Another challenge highlighted by the participants was their lack of resources to acquire fertilizer to apply to the maize plants. The chiefs, in their response to the question concerning how the idea to start a feeding program at the school was conceived, went further to explore challenges that they anticipate facing; they said, "*We found land, but had problems to get seed, we struggled and got this but our worry is on where we get fertilizer to apply to the maize because for maize to be strong, it needs fertilizer*". It should be noted that the participants refer to chemical fertilizer as "fertilizer". In Malawi,

chemical fertilizer is known as fertilizer, and the other types of fertilizer are referred to as manure. Concurring with the chiefs, parents said, "*Fertilizer is an issue. Up to now, we haven't applied fertilizer. We do not know where the fertilizer will come from*". During the focus group discussion with SMC/PTA members, the participants lamented, "*We do not have money to purchase fertilizer so that we can have a bumper yield*". Many households in Malawi rely on chemical fertilizer to increase their yield. Let me provide a little background information regarding chemical fertilizer usage in Malawi, and I hope this might help in providing a better understanding of the households' reliance on chemical fertilizer to increase yield.

Prior to 1998, Malawi, as a country, was producing enough maize to feed its populace. However in the late 1990's, Malawi started experiencing grain deficits as a result of rising land pressures, declining soil fertility, low productivity, and periodic weather shocks. During 1998/1999 cropping season, in an effort to improve smallholder farmers' productivity, the Malawi Government, with support from donors, started the fertilizer subsidy program. All households were given a small provision of "starter pack" comprised of chemical fertilizer and hybrid maize seeds. However, in early 2005, this program changed face and started using a targeted approach. Targeted small holder farmers received free coupons for the purchase of fertilizer and hybrid maize seeds. The program continues to this day using targeting rather than universal approach but the number of beneficiaries keeps declining. It is not known how many households will benefit from the program this 2011/2012 cropping season (for an elaborate explanation of the subsidy program, see Dorward & Chirwa, 2011). The use of chemical fertilizer alone as an agent to increase yield in this government-run subsidy program may be a plausible

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explanation to the participant's overreliance on chemical fertilizer as the only viable way to increase maize yield.

Even though participants were aware of other alternatives to chemical fertilizer, their desire was to have external support to help them purchase chemical fertilizer because, on their own, they couldn't afford it. One of the village headmen made this observation, "*the main issue is fertilizer. We wish others [well-wishers] to help us on this issue because that will show that our effort is not in vain. This is the area that we need support*". The longing for **benevolence** was prevalent throughout the focus group discussions in almost all the categories of participants. For instance, in the course of the interviews, the parents made this observation, "*Where will the utensils for cooking come from? Because we can't afford that here, sugar, salt these things. We were just told that people from government are coming and so we need your help*". The participants desire for external help to address challenges that the initiative faces or is bound to face may be attributed to the way the discussion of having a school feeding program at the school started. As you may recall, it was the teachers who came up with the idea of starting a feeding program, and they asked the mother group members to advocate for this initiative to the rest of the community members.

Promoting dependency?

As can be seen from the above discussion, it was the teachers "idea" to have a school feeding program started at this school. One of the teachers confirmed that this was the case in response to this question, "who really started this initiative here? Was it the community or it came from the teachers?"

> It was us teachers who informed the community about our desire to start a feeding program to counter absenteeism. But also sometimes the kids would say "am sick, I have a stomachache, when we ask what they had eaten, they say no, I didn't eat anything so we know the sickness is hunger (individual interview T, 1/18/2011).

The way the initiative was introduced to the community renders it vulnerable. Instead of engaging the community in a dialogue regarding the issue of absenteeism and letting them participate fully in the decision making process, the teachers just offered the solution to the community. In the same regard, the community members were waiting for well-wishers to offer solutions to the challenges they anticipate facing as they implement the program:

> You have seen our challenges; please help us to find well-wishers to help us. It takes a village to raise a child. One person cannot do it alone so we hope you will help us. This is our plea to you… We need additional maize because maize that we will harvest will not be enough. So that is a challenge. We do not have a kitchen and kitchen utensils so please, please help us ((focus group PTA/SC, 1/18/2011).

The community members' participation in the decision making process regarding what needs to be done to counter absenteeism was at a "pseudo" level. As was discussed earlier in the literature review, participation can be viewed from either a "genuine" or a "pseudo" perspective (Rose, 2003). Unlike pseudo participation where community members are only informed about prior decisions, genuine participation enables community members to control decision making (Rose, 2003; Broham, 1996). Pseudo participation is described as extractive and restricted to resource mobilization while genuine participation is empowering. The community members at this point were not fully empowered to take ownership of the program. The social marketing campaign needs to focus on reinforcing community ownership of the program by highlighting the community members' commitment to the program and underscoring local solutions that

the community members alluded to in the focus group discussions but were not at that

point fully considered as viable alternatives.

For instance, during the parents' focus group, a probing question regarding 'what

will become of the initiative should the government decide not to come and assist with

the challenges' was raised, to which the parents replied:

> We will mobilize just like we do when we want to buy utensils to help at a
> funeral ceremony. We contribute and buy utensils and so we will borrow these
> utensils and use them here as long as you know that we are using borrowed
> utensils so that when you bring the utensils, you will find the children eating (
> focus group P, 1/10/2011).

The community members on their own without external support were able to mobilize

themselves and buy kitchen utensils that are used during funeral ceremonies. In addition,

the parents suggest that it's possible to use the same utensils for the feeding program at

school. Counting on someone to do something for you is called dependency. Due to these

dependency tendencies, the parents are willing to let the feeding program use the funeral

utensils as long as it is on an understanding with the "well-wisher" that the community is

still waiting for their help with cooking utensils. It is interesting to note that these parents

are willing to lend an unknown well-wisher the use of their own utensils so that the

parents can cook food for their own children.

Even though it was the teachers' idea to start a feeding program, the participants

agreed that feeding children at school was a good idea, "*This is a good idea because of

hunger. Many children leave their homes hungry so it's good idea for the children to eat

at school*". This is a window of opportunity for the social marketing campaign. It is

necessary to use this desire for a feeding program as an avenue to draw the community

members back to a more elaborate discussion regarding viable alternatives to issues that

the community perceives as challenges. For example, during the focus group discussion

with the elders, a deliberate effort to explore how farming was done in the past led to this

elaborate recount by the elders:

> *Kale, malo olima anali ambiri ndipo ife za feteleza wa chizungu sitimadzidziwa ayi. Kalelo, tikanthira ndowe za ng'ombe kumunda ndipo chimanga chimene chimachoka pamemepocho ayi ndithu osasimbika. Chimangatu chochititsa kaso. Komanso poti malo olima anali ambiri, timkasiya munda watunthu kwa chaka osalimapo ayi. Zimenezi zinkathandiza kubwezeretsa nthaka kudothi. Koma lero ayi ndithu nthaka inaguga. Masiku ano ndiofunika kunthira feteleza wachizungu kuti tikolole ndipo sizapafupitu ayi. Feteleza wa chizungu ndiodula kwambiri ndipo ife nanga ndalama ndikuzipeza kuti kodi (kucheza ndi agogo,* 1/20/2011). In the past, we could just share land and we had plenty of land. We used to use cattle waste for fertilizer. We used to harvest a lot using animal waste. We were not using chemical fertilizer at all. We used to practice crop rotation. We could leave a piece of land un-harvested for a year and this could restore fertility of the land. Nowadays the land is no longer fertile. We have to use chemical fertilizer and we struggle to get chemical fertilizer (focus group Elders, 1/20/2011).

Resurgence of old habits can help address some of the challenges that the participants

highlighted. According to the elders who participated in this study, the use of cattle dung

to add fertility to the soil worked, and they were able to harvest bumper yield. There are

important lessons that can be learned from the past, and it will probably be beneficial to

the feeding program if such practices were revived. As an example, this concept of using

organic manure as a substitute for chemical fertilizer is worth exploring. As earlier

discussed in the sustainability section of the literature review, the need to stay within the

biophysical carrying capacity is highly compromised in Malawi. This is partly due to

mono-cropping practices that farmers engage in (maize being the dominant crop

cultivated), which renders soil unproductive unless manure is used to nourish the soil.

Unfortunately, indigenous ways of nourishing the soil are rarely practiced; many farmers

rely on expensive chemical fertilizers, which they cannot afford, thus reinforcing

dependency on external support (government or otherwise) to ensure a good harvest (Nordin, 2000). Overreliance on chemical fertilizers is a "lock in" that might negatively impact sustainability of school feeding programs in this community.

In addition to getting manure from cattle dung, ecological-sanitation toilets also provide manure that can be used in the school garden. As noted earlier, these toilets enable the recovery of nutrients contained in human excreta that can then be safely re-used in agriculture. At Malembe primary school, the sanitation situation is critical. Starting a school feeding program without addressing the issue of sanitation will only worsen the situation and may even lead to outbreaks of diarrhea and other diseases caused by unhygienic practices. It is recommended that one should wash hands before eating. In addition, excreta are waste product of the digestive system. Digestion occurs once food is eaten. Therefore, it is inevitable that some pupils might want to use the toilet after eating at school. As discussed above, there were only 11 pit latrines, 6 for girls and 5 for boys at the school. Pupil/toilet ratio was a staggering 185: 1 for girls and 166:1 for boys. The pit latrines were not thatched, and there was no source of clean water at the school. Below is a picture of some of the pit latrines.

Figure 4.3: Latrines at Malembe school

Addressing the challenge of chemical fertilizer by offering viable alternative whilst improving sanitation situation at this school will go a long way in ensuring that community members do not feel overburdened with this initiative. Instead of despairing when "well-wishers" are not forthcoming, the community will be able to use local solutions to address some of their challenges.

Unfortunately, when the participants were asked to weigh in on the idea of using manure gotten from eco-can toilets in the maize fields in order to increase yield, they expressed overwhelming feelings of **repulsiveness**. The thought of using their own re-cycled excreta to nourish the soil disgusted them, and they expressed reservations concerning adopting such a practice. One of the village headmen said:

> But to say the truth, this issue will make us mad. Do not go along this story sorry not human waste, sorry, sorry, when that waste is gone, it is gone do not suggest

that to us no. You want us to be sick no you will handle that yourself (Focus group VHM, 1/19/2011).

In addition, some parents said, "*Kumeneku ndiye kutilaula ndithu! Koma zimenezi zoona? This is an abomination! Is this what we are hearing true?* Human excreta in their raw state are indeed disgusting and smelly. However, when eco-san toilets are used correctly, they are odorless. It will be necessary for the social marketing campaign to focus on challenging this false impression concerning manure from human excreta. Compost from eco-san toilets is safe to use and, as discussed in the literature review, there is scientific evidence attesting to this assertion. Even though many participants expressed reservations regarding the use of humanure in the maize garden, there were a few participants that were open to the idea. One of the village headmen challenged his colleagues, and he made this observation:

> But we learn from others. Do we know what they use when they make fertilizer? Just because other people have made fertilizer then it is clean but you can't make it yourself? No, no, no, let us be receptive. Let us have an open mind. We use animal waste but we cannot use our own waste? [Laughing in the background] Manure comes from rubbish so let us not be repulsive (focus group, VHM, 1/19/2011).

Concurring with the chief, one of the parents said, "*If someone comes to teach us, we will be happy to learn. We cannot say no to something that we do not know. Maybe it is a good thing but we need to be taught first. So we can't say yes or no*". The social marketing campaign will benefit from using community members who are receptive to new ideas to influence others to adopt the behavior. It is particularly encouraging to note that there are some chiefs who are open to the idea. Since leadership is with the chiefs, it will be important to target such chiefs to help persuade others to adopt the use of eco-san toilets whose output is humanure as a viable alternative to the use of chemical fertilizer.

Still more, there is need to deliberately form partnerships with other development agencies. For example, it is encouraging to note that UNICEF has already started addressing some of the challenges that the school is facing. One of the parents was happy to report that, "*water is a problem here too but we have been told that this issue is being addressed so we are sure we will have safe water*". UNICEF is constructing additional pit latrines, classrooms and also drilling a borehole. It is important to lobby agencies such as UNICEF who have already shown an interest in assisting the school to also consider the possibility of constructing a kitchen and a storage room for the school. Even though it is commendable that UNICEF is constructing some pit latrines at the school, unfortunately these pit latrines are not enough. Promotion of eco-san toilets in this case makes sense because it will not only decrease the pupil/toilet ratio but it will also address the challenge of fertilizer as well. It is with this reasoning in mind that the social marketing campaign will focus on promoting the use of eco-san toilets whose output is humanure in order to reduce some of the barriers to community participation in supporting the school feeding program at Malembe primary School. However, before I provide an elaborate plan for the social marketing campaign, let me discuss some of the common means of communication in this community as highlighted by the participants.

Communication channels

The participants highlighted several communication channels that are commonly used when passing important messages. The school usually writes letters to the community, and they use the pupils to deliver these letters to their parents/guardians and chiefs. The teachers at times use the church but they always let the chiefs know what is

going on. The teachers said that they specifically host an open day once a year where

they showcase what is going on in the school. The school uses drama, role-play, scientific

demonstrations, and display tables as some of the media of communication:

> We write letters to the community and we even use the pupils and give those
> letters to them to give their parents/guardians. We also give letters to the pupils to
> take them to the village headmen who will make a public announcement. We call
> the community to come to open day that we host once a year where we display
> what we do in school. We use drama, role-play, scientific demonstrations and
> table displays. We write notices on the school notice board and we make
> announcements at the assembly. We have assembly meeting everyday (focus
> group, T, 1/11/2011).

For every event that the school hosts, chiefs are informed, and the chiefs make a public

announcement to the rest of the community. Chiefs are responsible not only to offer

leadership but also to convey messages to the villagers. It will be beneficial to the social

marketing campaign if a deliberate effort is made to partner with the chiefs when

promoting the use of eco-san toilets in this community.

When the teachers were asked to explain why they decided that starting a school

feeding program was the right course of action to take in order to counter absenteeism,

they said that they were inspired by what they heard on the radio regarding schools where

they were implementing feeding programs. Some teachers cited the newspaper as another

media where they get a lot of information about current events. However, when the

community members were asked to talk about how they get information, in addition to

mentioning the means of communication that the teachers already pointed out, they also

expressed a desire to get messages through the phone, "*We want to hear the messages*

through the phone". As stated earlier, there is need to initiate partnerships with other

agencies. Agencies such as the phone service providers could add value to this campaign.

Cell-phone is very popular in Malawi these days, and so this is a worthwhile medium to explore.

<u>Conclusion</u>

This chapter highlighted the benefits of supporting a school feeding program at Malembe primary school as presented by the research participants. Participants in this study viewed school feeding as an opportunity for the pupils to start at an equal footing, at least where food is concerned, and also as a program that gives hope to the hopeless. In addition to school feeding program being an equalizing mechanism, the participants viewed this initiative as an opportunity for them to provide local solutions to the challenges that they face and, in so doing, collectively build their community.

Unfortunately, lack of transparency, coordination, and open communication breeds "cooperation gaps" that threaten the smooth implementation of this initiative. Furthermore, lack of resources to purchase chemical fertilizer and cooking utensils, and to build kitchen and storage rooms also jeopardize the sustainability of this program. Compounding the challenges are the dependency tendencies exhibited by the participants. Luckily, as pointed out throughout my discussion of barriers, there are avenues where the challenges can be turned into opportunities, and it is the aim of the social marketing campaign to use such windows of opportunities to promote community participation in this initiative. From these findings, promotion of eco-san toilets whose output is humanure makes sense, as it will reduce some of the barriers to community participation in the school feeding program that the participants cited. The next chapter will provide an elaborate outline of the social marketing campaign to be implemented at Malembe primary school.

CHAPTER 5

SOCIAL MARKETING CAMPAIGN PLAN

Let's Go Green! SMART Buzz… (Social Marketing Approach to Re-thinking Toilets)

How can barriers to community participation in school feeding program

be minimized and benefits highlighted?

As seen from the data analysis, lack of transparency, coordination, and open communication breeds "cooperation gaps" that threaten the smooth implementation of the community driven school feeding program at Malembe primary school. Furthermore, lack of resources to purchase chemical fertilizer, cooking utensils, and build kitchen and storage rooms also jeopardize the sustainability of this program. Compounding the challenges are the dependency tendencies exhibited by the participants. Fortunately, there was a general agreement among the participants that the school feeding program that was initiated at the school is an opportunity for the pupils to start at an equal footing, at least where food is concerned, and it's a program that gives hope to the hopeless. In addition to the school feeding program being an equalizing mechanism, the participants viewed this initiative as an opportunity for them to provide local solutions to the challenges that they face and, in so doing, collectively build their community. Building on these findings, this chapter will attempt to frame this initiative in a way that will hopefully promote community participation in this program. Addressing the challenge of chemical fertilizer by offering a viable alternative will go a long way in ensuring that community members do not feel overburdened with this initiative.

Ecological-sanitation toilets provide manure that can be used in the school garden. As noted earlier, these toilets enable the recovery of nutrients contained in human excreta that can then be safely re-used in agriculture. This social marketing campaign will present eco-san toilets as a viable alternative that will provide the much needed fertilizer for the school garden. The focus group discussions and individual interviews revealed that it is possible to tap from the resources that are available in this community to address some of the challenges that the school feeding program started at this school faces. For instance, the community already has cooking utensils that are used during funeral ceremonies. These cooking utensils can be used on a temporary basis in the feeding program whilst waiting for government to include such expenses in its budget. As a lasting solution, using utensils meant for funeral service is not feasible because it is highly likely that a funeral can take place at the same time that school is in session. Furthermore, it was noted during the discussion with elders that the concept of using compost manure to nourish the gardens is not new. In the past, the members of this community were using cow dung to nourish the soil. The main challenge therefore is to raise awareness among the community members of these options that are already available in this community.

In addition, focus group discussions and individual interviews signaled that there are seven main target groups that the campaign should address: (1) village headmen whose leadership is very influential not only in this community, but the rest of the communities in Malawi. As I pointed out earlier in the analysis chapter, the chieftaincy is an important institution in the provision of public goods and services. There cannot be any development at the local level without the participation and approval of the chiefs. (2) Mother group members who are mandated by the school community to ensure that

girls enroll and persevere in school. (3) Parents/guardians who generally struggle to provide breakfast to their children. (4) Pupils who are the primary beneficiaries of this program. (5) Teachers/government officials who are responsible to ensure that all children have access to education and also often introduce new ideas. (6) Elders whose indigenous knowledge will provide insights to this campaign and, (7) other development agencies who focus on improving the general welfare of pupils and communities.

First, a brief description of the campaign and its objectives will be outlined. After that, an explanation of the behavior/*product* will be presented and potential branding ideas explored. Then I will articulate possible *places* where this behavior/*product* can be made available so that people can easily access it. This discussion will lead to a more elaborate explanation of the *price* to be paid (economic, psychological or environmental) if the community at Malembe primary school decides to take on the behavior that this campaign will advocate for. It is my hope that strategies used to minimize barriers will enable the community to appreciate that adopting the behavior is not costly at all. Lastly, a comprehensive *promotion* strategy will be presented and this chapter will end with an evaluation plan for the campaign.

Brief Description of Let's Go Green! Smart Buzz… Campaign

This campaign is a three and half year's eco-san toilet promotion initiative that will be implemented at Malembe primary school and the surrounding twenty-four villages that are feeder villages to this school. These villages are divided into four main group villages namely; Kuliyani, Malembe, Chitukula and Bvunguti under Traditional Authority T/A Chitukula. The focus of the campaign is to make eco-san toilets a

household necessity in this community. Specifically, the campaign will focus on achieving these six key objectives: (1) Inspire village headmen to support a shift from traditional latrines to eco-san toilets; (2) encourage mother group members to include advocacy for shift from traditional latrines to eco-san toilets as one way of ensuring that girls enroll and persevere in school; (3) increase the number of toilets at Malembe primary school by constructing 24 eco-san toilets (11 for girls, 9 for boys, 3 for female teachers and 1 for male teachers; these toilets will bring the pupil/toilet ratio down to 62:1); (4) promote hand washing with soap at Malembe primary school and the surrounding villages; (5) increase the number of community members who use compost manure to nourish the soil; and (6) increase the number of children who have access to a nutritious meal at Malembe primary school. Below is an elaborate explanation of each objective and activities that will be carried out to achieve the objectives:

Objective 1: Inspire village headmen to support a shift from traditional latrines to eco-san toilets.

As a means to achieving objective 1 and all the other 5 objectives, the campaign will promote knowledge sharing with the aim of learning from others who are already using eco-san toilets. All the 24 village headmen including Traditional Authority Chikutula will be taken on a field trip to Salima district where they will visit a model village. In this village, the community is using eco-san toilets, and they use humanure to nourish their soil. In addition, trainings in eco-san construction and proper usage will be conducted. Meetings between the chiefs and their subjects to talk about eco-san toilets will be encouraged.

Objective 2: Encourage mother group members to include advocacy for shift from traditional latrines to eco-san toilets as one way of ensuring that girls enroll and persevere in school.

This objective will be achieved by conducting a workshop for mother group members where the linkages between improved sanitation, school feeding and girl's enrolment and perseverance in school will be explored. Later, the mother group members, just like the village headmen, will be taken on a field trip to Salima where they will visit the model village. The mother group members will also be trained in eco-san construction and proper usage. Proper usage training will include the importance of hand-washing with soap and creative writing sessions with the aim of involving the community members in the creation of *promotion* messages.

Objective 3: Increase the number of toilets at Malembe primary school by constructing 24 eco-san toilets (11 for girls, 9 for boys, 3 for female teachers and 1 for male teachers).

Since UNICEF is already constructing some toilets at the school, the campaign coordinator will capitalize on that and work with the chiefs to lobby UNICEF to consider supporting the school feeding initiative by funding the construction of additional 24 eco-san toilets. Some community members from Salima eco-san model village will be asked to come and help the community at Malembe primary school in the construction of these 24 eco-san toilets.

Objective 4: Promote hand-washing with soap at Malembe primary school and surrounding villages.

Any sanitation initiative would be incomplete without incorporating the promotion of hand-washing with soap. Provision of safe water is the first step in

promoting good sanitary practices. The campaign coordinator will follow up with UNICEF on its pledge to drill a borehole at the school. Pupils through their Health education classes will be taught the importance of hand-washing with soap at critical times. These critical times include before and after food preparation, before and after eating, after using the toilet, after changing a child's diaper, and every-time the hands are dirty. Pupils at the school will be encouraged to establish a health promotion club, and the campaign will partner with mobile phone service providers so that they can send periodic text messages on the importance of hand-washing with soap to its clients. Since the participants had expressed the desire to receive messages through the phone, hopefully the text messages will positively influence them to practice hand-washing with soap. As a cue for action, clean water and soap will be placed near the toilet to help prompt the behavior. Village drama, radio plays, and jingles will all incorporate the important role hand-washing with soap plays in improving general body health.

Objective 5: Increase the number of community members who use compost manure to nourish the soil.

In order to realize objective 5, open days and eco-san village fairs will be conducted where the community members will have a chance to experience the benefits of eco-san toilets. During these open events, there will be demonstrations on the proper use of eco-san toilets. Visits to the school garden where humanure from the school eco-san toilets is used to nourish the soil will also be conducted. The village headmen and mother group members will help in sensitizing the community members on how to construct eco-san toilets. The elders will play a significant role in these open events. They will be asked to share their knowledge and experience regarding the use of organic

manure to nourish the soil. Some members of the community who will be nominated by the chiefs will undergo creative writing workshops so that they can spearhead the composition of *promotion* messages for this campaign.

Objective 6: Increase the number of children who have access to a nutritious meal at Malembe primary school.

With the construction of 24 eco-san toilets, the manure gotten from these will be used to fertilize the school gardens donated by the village headmen. With increased production of maize and soya, pupils at Malembe primary school will have access to the maize/soya blend porridge. Below is the logic model for the campaign.

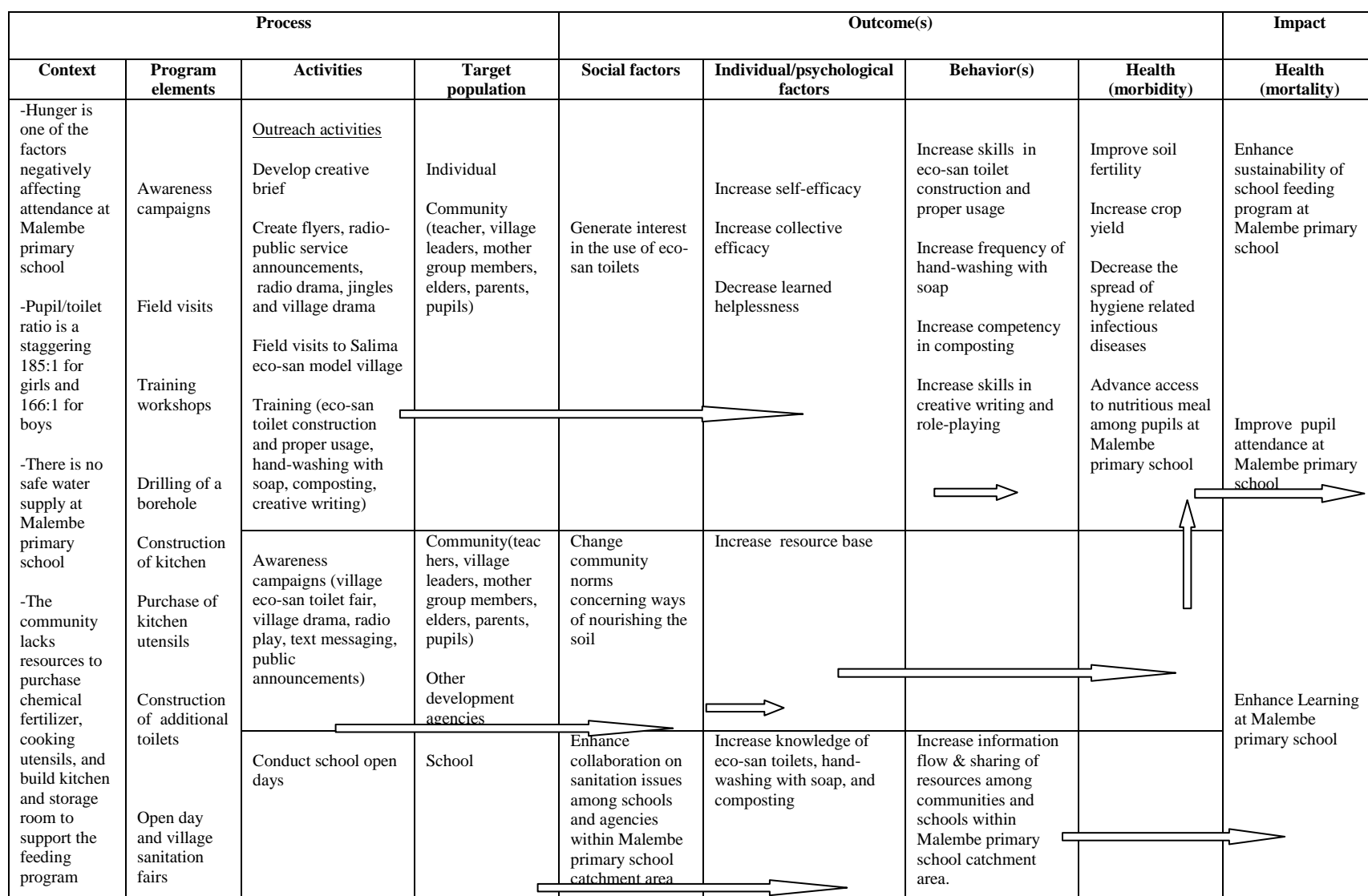| Process				Outcome(s)				Impact
Context	**Program elements**	**Activities**	**Target population**	**Social factors**	**Individual/psychological factors**	**Behavior(s)**	**Health (morbidity)**	**Health (mortality)**
-Hunger is one of the factors negatively affecting attendance at Malembe primary school -Pupil/toilet ratio is a staggering 185:1 for girls and 166:1 for boys -There is no safe water supply at Malembe primary school -The community lacks resources to purchase chemical fertilizer, cooking utensils, and build kitchen and storage room to support the feeding program	Awareness campaigns Field visits Training workshops Drilling of a borehole Construction of kitchen Purchase of kitchen utensils Construction of additional toilets Open day and village sanitation fairs	<u>Outreach activities</u> Develop creative brief Create flyers, radio-public service announcements, radio drama, jingles and village drama Field visits to Salima eco-san model village Training (eco-san toilet construction and proper usage, hand-washing with soap, composting, creative writing)	Individual Community (teacher, village leaders, mother group members, elders, parents, pupils)	Generate interest in the use of eco-san toilets	Increase self-efficacy Increase collective efficacy Decrease learned helplessness	Increase skills in eco-san toilet construction and proper usage Increase frequency of hand-washing with soap Increase competency in composting Increase skills in creative writing and role-playing	Improve soil fertility Increase crop yield Decrease the spread of hygiene related infectious diseases Advance access to nutritious meal among pupils at Malembe primary school	Enhance sustainability of school feeding program at Malembe primary school
		Awareness campaigns (village eco-san toilet fair, village drama, radio play, text messaging, public announcements)	Community (teachers, village leaders, mother group members, elders, parents, pupils) Other development agencies	Change community norms concerning ways of nourishing the soil	Increase resource base			Improve pupil attendance at Malembe primary school
		Conduct school open days	School	Enhance collaboration on sanitation issues among schools and agencies within Malembe primary school catchment area	Increase knowledge of eco-san toilets, hand-washing with soap, and composting	Increase information flow & sharing of resources among communities and schools within Malembe primary school catchment area.		Enhance Learning at Malembe primary school

Figure 5.1: Campaign logic model

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The product

How can school feeding program be framed to promote community participation?

Figure 5.2: Chimbudzi cha OMA

Figure 5.3: OMA toilet

The two posters (fig. 5.2 and fig. 5.3) offer a visual description of the behavior that the community at Malembe primary school will be influenced to adopt. The first poster is in Chichewa the language commonly spoken not only among community members of Malembe primary school, but by almost everyone in Malawi, while the second poster is in English. As alluded to earlier during my discussion of the barriers to community participation in school feeding program at Malembe primary school, promotion of eco-san toilets makes sense because it will not only decrease the pupil/toilet ratio but it will also address the challenge of fertilizer as well. The aim of this campaign is to make eco-san toilets a household necessity and as such, the *product* (eco-san toilets) should be able to depict the benefits of using such toilets to the target group whilst minimizing the barriers that the participants highlighted. You may recall that in the literature review, I made a direct reference to Kotler (2002) which read "people don't buy products. They buy expectations of benefits". A *product* is a bundle of benefits of a behavior packaged together.

Malawi in general is a poverty stricken country. The community of Malembe primary school is no different. As noted in the analysis chapter, many participants cited poverty as the main reason why pupils come to school without eating breakfast. The *product* should therefore take this reality into consideration and demonstrate that the behavior being advocated for is within the target group's economic means. The three toilets in the poster are not fancy and can compel even the poorest of the poor to consider the possibility of having such a toilet. The possible brand name "**OMA toilet**" under which this campaign may run encompass all the three main benefits of using eco-san toilets as opposed to traditional latrines. OMA is an acronym that means O̲dorless,

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<u>M</u>anure giving, <u>A</u>ffordable toilets. The first attribute that this campaign would like to emphasize is the actuality that eco-san toilets do not smell. Generally, repulsiveness that is associated with human excreta is due to its unpleasant odor. Human waste is disgusting and it smells and as such, people do not want to associate with it. This campaign will challenge this supposition by highlighting the odorless characteristic of eco-san toilets. When eco-san toilets are used properly, they do not smell.

Although compost toilets can take many forms, the principles of operating them are similar. As discussed earlier in the literature review section, there are those eco-san toilets that use urine diverting technology while others simply collect all human excreta which includes faecal material, urine, toilet paper, and these go along with carbon-based cover material. Such materials include saw-dust, rice husks, groundnut shells, maize bran/chaff (madeya) or crushed leaves etc. Other compost toilets also use soil and wood ash as cover material. The cover material that is added to the faecal matter (and in some toilet forms urine as well) eliminates the odor and also facilitates composting. The campaign will therefore emphasize the proper use of these toilets and the need to add sufficient cover material every time one visits the toilet so that the bad smell is completely eliminated.

Another attribute of eco-san toilets that this campaign will underscore is its ability to give back. Eco-san toilets are an avenue to re-cycle human excreta and the manure gotten from them can safely be re-used to grow crops. Unlike traditional pit latrines and flush toilets that waste the essential nutrients found in urine and faeces such as nitrogen, phosphorous, potassium, and organic carbon, eco-san toilets provide an avenue to safely re-use these nutrients to nourish the soil thus providing a favorable environment for plant

growth. The wait period (6-12 months) after the toilet is full enables pathogens (through heat producing composting) to die. The manure from eco-san toilet is a viable alternative to chemical fertilizer. Manure giving aspect of eco-san toilets will therefore be emphasized throughout the three and half years that this campaign will run.

Finally, eco-san toilets are affordable and the campaign will focus on this aspect by drawing attention to locally available materials that can be used when constructing these toilets. For instance, if you can refer back to the OMA toilet poster, you will notice that grass was used when constructing the walls and door of one of the toilets. The other toilet is made of a plastic waterproof bucket and an old chair is used as a seat. The toilet cover can easily be made from local materials such as reed. The cover doesn't have to be tight fitting because it is not the toilet cover that prevents the toilet from smelling but rather the cover material that is added generously every time one visits the toilet. The composting bins can also be made using locally available materials. Even the cover material that is required can be gotten from local materials such as groundnut shells, rice husks, maize chaff, wood ash, saw-dust and soil, just to mention a few locally available cover materials.

In terms of branding the *product*, there are several options that can be explored. The first possibility was presented when I explained the benefits of eco-san toilets to be highlighted in this campaign. I mentioned "OMA toilet" (odorless, manure giving, affordable) as a possible brand name for the campaign. Another possibility is to qualify OMA by adding Smart. SMART as the heading of this chapter reads is an acronym that means Social Marketing Approach to Re-thinking Toilets. So the brand name can possibly read "OMA is Smart". Another option is, "Act Smart: Use OMA toilets". All

these are possibilities because they portray immediate rewards of eco-san toilets, and this

can be appealing to the target group. However, there are probably more branding

possibilities that the team (mother group members and the people that the chiefs will

appoint to undergo creative writing training to enable them spearhead the composition of

promotion messages) can come up with. This campaign will deliberately encourage the

community to come up with a brand name that is appealing to them. I now turn to a

discussion concerning the *place* where the community can easily access this product.

Place

Making the *product* available is one of the essential elements of any social

marketing initiative. As noted in the literature review, bringing the *product* closer to the

target group helps to reduce costs, barriers associated with access and makes it easier for

the target group to make decision since the *product* is available at the point of decision

making. The aim of this campaign is to make eco-san toilets a household necessity. This

entails that eco-san toilets should not only be accessible to the community at Malembe

primary school, but that the toilets should become a part of everyday life of this

community. In order to make eco-san toilets a household necessity, their usage ought to

become a routine. In the literature review chapter, it was discussed that a behavior that

should soon become routine can be introduced at life changing events, the school is an

ideal *place* to make eco-san toilets available because it is a place where people are more

likely to be influenced to change their behavior. Twenty-four eco-san toilets will be

constructed at Malembe primary school making them accessible to both pupils and

teachers. As a way of reinforcing hand-washing with soap, clean water and soap will be

placed very close to the toilets to prompt the behavior of washing hands with soap every-time one visits the toilet.

Another *place* where this behavior will be made accessible in this community is at the market place. Lilongwe District Assembly as a government agency responsible for rural development will be asked to construct eco-san toilets at the market place in this community. The market is another ideal *place* to make this *product* available because a lot of people go to the market to buy and sell goods and services. Clean water and soap will be placed at strategic places so that people can be cued to action immediately they visit the toilet. All the eco-san toilets constructed will have directions on proper usage written on posters that will be hanging inside the toilet. These directions will be written in pictorial form to accommodate those people who do not know how to read.

The participants highlighted several communication channels that are commonly used when passing important messages. The teachers said that they specifically host an open day once a year where they showcase what is going on in the school. The school uses drama, role-play, scientific demonstrations and display tables as some of the media of communication. This campaign will use radio and village drama among other ways of communication as a way of making information concerning eco-san toilets readily available to people. Venues for drama can also be viewed as a *place* where the *product* "eco-san toilets" is readily available to the community members of Malembe primary school. When the community members tune in to the radio and are exposed to eco-san *promotion* messages; that is a *place* where the *product* is readily available. In addition, field visits to Salima eco-san village will also make the *product* accessible to the delegates. The delegation from Malembe primary school community will have an

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opportunity to visually see the *product* in action. Salima eco-san village is a *place* where the behavior is readily available.

The members of community will also be encouraged to make a shift from traditional latrines to eco-san toilets. When community members construct family eco-san toilets, they will make the *product* accessible at household level. Households will be another *place* where the behavior is marketed.

Price

It was observed in the literature review chapter that the cost of a behavior can either be economic, psychological, or environmental. The monetary cost of constructing an eco-san toilet varies according to type of toilet. The *price* of composting toilet that either uses the bucket system or two concrete alternate pit or two alternate brick meshed pit (use of pits alternate; once a pit is full, it is covered and left to sit for a period of 6-12 months and the other pit is used) also varies. For example, the bucket toilet displayed in the *product* poster above costs approximately 10 US dollars which is about 1,620.00 Malawi Kwacha. This type of toilet does not require construction of a new toilet infrastructure. Community members can use the old traditional latrine structure for the bucket toilet. What needs to be done is to carefully seal the hole on the pit latrine and then place the bucket on top of it. An old chair can then be used as a seat for the bucket or people can just squat over it since they are already used to squatting over the pit latrine. For an average family of six-eight members, the bucket can fill up two or three times a week. The full bucket should be emptied unto the compost bin/basket (these can be made using local resources such as reed or left over wood or grass). The water used to rinse the

bucket should be added to the compost pile and sufficient cover material ought to be used to cover the deposit. The bottom of the bucket should be lined with cover material and the bucket returned to the toilet shelter.

In return for the *price* paid to construct a bucket toilet system, time and the labor involved in empting the bucket every-time it is full unto the compost bin/basket, an average family of six members can harvest three bins of compost in one year (Nordin, 2011). One bin of compost covers an area where two bags of chemical fertilizer are used to nourish the soil (Nordin, 2011). The price of one bag of chemical fertilizer is K7, 000.00 (approximately 43 US dollars). Three yield of compost means a saving of about K42, 000.00 (258 US dollars).

However, the two alternate concrete pit toilet is costly but harvesting of compost is easier. It is easy to remove compost from this toilet because there are doors fitted at the back that can easily be opened once the compost is ready for harvest. As can be seen from the *product* poster above, this type of toilet uses a lot of cement and currently, one bag of cement costs K3, 600.00 (23 US dollars). The total cost of a two alternate concrete pit toilet is approximately K120, 000.00 (741 US dollars). However, the two alternate pit toilet is still cheaper when compared to a double VIP latrine (one example of a traditional latrine that is recommended for schools). The cost of one double VIP latrine was estimated at 2, 255.35 US dollars in Lilongwe District Assembly which is approximately K365, 367.00 Malawi Kwacha (Kalanda, Mandala & Maoni, 2008). The cost of a two alternate brick meshed toilet is comparable to the cost of a traditional latrine. There is however an extra cost of cement that is used to make removable san-plat

(concrete cover for the pit). One bag of cement can make up to four san plats (Nordin, 2011).

Psychologically, people have to overcome the feeling of embarrassment that is associated with human excreta. People who use humanure are often looked down upon by society. The use of humanure is viewed by many in Malawi as an abomination. It is possible that some people may refrain from eating food grown on soil that uses humanure as fertilizer. This campaign will therefore use the field visits to re-assure the community members at Malembe School that humanure is safe to use and there is nothing disgusting regarding its use. The people of Salima ecosan village are safely using humanure and are proudly eating and selling produce gotten from fields where re-cycled human excreta is used to nourish the soil .

Another challenge at Malembe primary School is lack of safe water within the school premises. There was no water supply within the school premises at the time of data collection in January 2011, and water used at this school was drawn from a nearby village well which is about 1500 meters away from the school. The *promotion* of hand-washing with soap is central to this campaign and water is needed in the feeding program as well. The cost of drilling a 45 m deep borehole in Lilongwe District Assembly was estimated at 4, 685.54 US dollars which translates to approximately 760,000 Malawi Kwacha (Kalanda, Mandala & Maoni, 2008). Although drilling a borehole is expensive, the community at Malembe primary school will not despair because UNICEF had shown interest in providing safe water supply at the school. This campaign will lobby UNICEF to follow through with its pledge of drilling a borehole at the school.

Furthermore, the use of eco-san toilets is viewed as a strategy that involves the adoption of technologies that are environmentally friendly so that economic progress is achieved concurrently with ecological sustainability. Eco-san toilets provide a safe avenue to re-cycle human excreta thereby making it possible to re-use the nutrients found in human excreta that would have otherwise been wasted. This initiative is environmental friendly and doesn't pose any environmental concerns.

Promotion

What are the likely channels of communication that can be used to enhance community participation in school feeding program?

Once the bundle of benefits are packaged as a *product* and the *price* and *place* are determined, there is need to *promote* the *product* so that the audience is aware of the behavior, are motivated to experience it and, most of all, are inspired to take action (Kotler et. al, 2002). Eco-san toilets will be *promoted* using multiple media channels to maximize coverage. These will include village drama shows, radio play, radio jingles, text messages, poster displays, flyers, open days, village fairs, and field visits. A group of representatives from the community (appointed by the chiefs) and some mother group members will spearhead the message composition process. A few teachers and other extension workers will also be part of this group so that they continue to offer technical assistance to the group. The ideal number for this group is twenty people (5 mother group members, 5 members from the community, 3 teachers, 1 health extension worker, 1 agriculture extension worker, 1 community development extension worker, 1 primary education advisor, 2 pupils and 1 elder). During the initial phase, external facilitators will

help the group with the basics of creative writing. This group will be responsible for developing the creative brief, jingles, radio and drama scripts, design posters and flyers and help identify actors for the village and radio drama (the village drama could be tape-recorded and later aired on the radio). Below are suggestions on how the creative brief might look like and some of the key areas that the campaign might place emphasis:

Sample creative brief

Key message:

> With OMA toilets, the feeling of relief is only the beginning.

Target Audience:

(1) All the village headmen in the 24 villages surrounding Malembe primary school, whose subjects look up to them and follow obediently what they are told. The chiefs' leadership is very influential and has the potential to make or break this initiative. Many chiefs are skeptical of using eco-san toilets but there are a few who are open to the idea. Many chiefs don't really believe that fertilizer from human excreta is safe to use. (2) Mother group members who are mandated by the school community to ensure that girls enroll and persevere in school. Most of the mother group members are open to experiment with eco-san toilets. (3) Parents/guardians who generally struggle to provide breakfast to their children. Many of them have not heard about eco-san toilets but are willing to learn if there is someone to teach them about this technology. (4) Pupils who are the primary beneficiaries of this program. They currently have problems accessing toilets because there are very few toilets at the school. They would like toilets that are roofed for privacy. (5) Teachers/government officials who are responsible to ensure that

all children have access to education and also often introduce new ideas. Teachers have heard of eco-san toilets being used elsewhere and are willing to try them at the school. (6) Elders whose indigenous knowledge will provide insights to this campaign. They have experience using organic fertilizer and are willing to share their experiences with the rest of the community and finally, (7) other development agencies who focus on improving the general welfare of pupils and communities. They have shown interest in helping Malembe primary school by addressing some of the challenges that the school faces.

What do we want to achieve

To know: Manure from OMA toilet is a viable alternative to chemical fertilizer.

To believe: OMA toilet is odorless, manure giving and affordable. Manure from eco-san toilet is safe.

To do: To go past repulsiveness and make the less obvious choice. Re-cycle human excreta and make OMA toilet a household necessity. Experience real relief and leave the toilet feeling clean. Wash hands with soap. Give back, support OMA toilet initiative.

Benefits to promise:

Free from burden of buying expensive chemical fertilizer. Experience real relief by giving back to earth and society and ensure future generation of flourishing life.

Support to promise:

. Real stories from people using eco-san toilets

. Graphic visuals of proper usage

. Real demonstrations on construction of eco-san toilets

. Clean water and soap placed near toilet

Openings:

. Watching village drama

. Visiting communities using eco-san toilets

. Listening to the radio

. Talking with community members

Positioning:

Ordinary toilets are all the same. They do not give back. Use OMA toilet and give back to earth and society.

Below are a few suggestions on how the messages might be framed so as to invoke emotional, moral and non-verbal elements of communicating the behavior.

Figure 5.4: Sample promotion messages

Should the group creating *promotional* messages wish to use real photographs in the posters as has been done in some of the sample posters above, consent from the people in the pictures need to be given before using them. The group will comply with all ethical requirements and the lead facilitators will make sure that the group follows proper procedures when creating *promotional* messages.

Here are a few prompts that might be developed further by the group spearheading the writing of *promotion* messages for the campaign:

- Shit is gold. Use OMA toilet

- Experience Real Relief. Use OMA toilet

- Real Relief. Go OMA toilet

- Play it safe. Use OMA toilet

- Dread the smell. Use OMA toilet

- Let's go green: Lets go OMA toilet

- Act Smart. Act Right. Re-cycle

- Give Back. Use OMA toilet

- Give Back. Support OMA toilet initiative

- Use OMA toilet. Wash hands with soap. Be Happy!

- Let's Go Green. Smart Buzz…

- OMAaa. Odorless, Manure giving, Affordable toilet

- Let's join hands and save our planet. Let's Re-cycle. Let's use OMA toilet

- Use OMA toilet. Spread the joy of giving back

- OMA toilets are a means, not an end

- Let's go back to our Roots. Let's Re-cycle. Let's use OMA toilet

- OMA toilet is a tool for good sanitation

- OMA toilet can impact agricultural produce

Once the group responsible for creating *promotion* messages completes the composition of messages phase, the messages created will be pre-tested through focus group discussion, individual interviews and also through professional review. Respondents will be informed in advance that the purpose of pre-testing the messages is not necessarily to compel them to adopt the behavior but rather to check whether the intended behavior is likely going to be conveyed through these messages. Using feedback from the respondents, messages will be modified and the campaign officially launched at Malembe primary school. The following section will present an elaborate evaluation plan for the campaign.

Evaluation plan

Goals

This evaluation seeks to identify areas that need improvement as the campaign is being implemented. This will be done by examining the campaign's usefulness in changing community norms regarding various ways of nourishing the soil; decreased helplessness among community members in relation to their capability to offer local solutions to challenges; increased self- and collective efficacy among community members; increased knowledge of eco-san toilets, hand-washing with soap, composting and increased information flow and sharing of resources among communities within Malembe primary school catchment area. The evaluation will use number of eco-san toilets constructed (OMA toilets); number of village drama performances; number of

times eco-san *promotion* radio play aired; number of field visits conducted, number of open days and village fairs hosted; presence of health *promotion* club at Malembe school; number of mobile phone services sending health *promotion* messages to clients; number of jingles aired; frequency of pupils accessing food through the feeding program; number of meetings facilitated by village headmen and number of development agencies assisting Malembe primary school and the surrounding villages as performance indicators for campaign usefulness.

Design

Due to the nature of the target group in the campaign (purposefully targeting village headmen, mother group members, parents/guardians, pupils, teachers/government officials, elders and development agencies interested in helping Malembe primary school) one-group pre-campaign and post-campaign (non-experimental) design will be used in the evaluation. Cluster (random) sampling method will be used when identifying sample villages. 5 out of the 24 villages will be randomly selected using simple random technique to participate in the pre-campaign and post-campaign survey questionnaire. From the 5 villages, 100 people will be randomly selected using stratified sampling technique so that representatives from each village are included in the sample. The questionnaire will be administered at household level. The questionnaire will be pilot administered with a few people from the target population to check whether the items are crafted in a way that will yield the desired results. Using information from the analysis of the pilot survey, items on the questionnaire will be modified to take into account the results from the pilot survey.

Although this kind of design is weak in terms of controlling for internal as well as external validity, it is still the most ideal design because the aim of the evaluation is not to generalize the findings to the Malawi population but rather to determine if the campaign is useful within the purposefully selected target group and identify areas that need to be improved. In addition, the design will use mixed methods, with both qualitative and quantitative data collection tools with the aim of triangulating the data thereby controlling for some of the threats to validity.

Measures

The usefulness of the campaign in achieving its outcomes will be determined by measuring the following variables.

Figure 5.1: Variables and measuring tools

OUTCOME	MEASUREMENT TOOL	MEASURES
Increased self-efficacy	Survey	General self-efficacy: When I am confronted with a problem, I can usually find several solutions; Thanks to my resourcefulness, I know how to handle unforeseen situations; I am certain that I can use OMA toilet even though my friends prefer traditional toilet (items from general self-efficacy scale originally developed by Schwarzer & Jerusalem, 1995). % of people using OMA toilets.
Decreased learned helplessness	Survey, Individual interviews	Self –esteem measuring feelings: I feel I do not have much to be proud of, - I feel useless at times, - On the whole, I am satisfied with myself (items adapted from Rosenberg's self-esteem scale, 1965).
Increased collective-efficacy	Survey, Observation	Perceived benefits: I am confident that we can improve the quality of life in the community even when resources are limited; despite our limited resources, we can commit ourselves to common community goals (Items adapted from Goddard, 2001).
Increased resource base	Survey	Availability of a variety of resources (local resources, development agencies, government).
Increased information flow and sharing of resources among communities within Malembe primary school catchment area	Survey, individual interviews	% of persons who are actually using OMA toilets; number of open days and fairs; frequency of meetings addressing eco-san issues; number of village drama performances; number of times eco-san toilet *promotion* play aired; number of jingles aired; presence of health *promotion* club at Malembe school; number of mobile phone service providers sending health *promotion* messages to clients.
Increased knowledge of composting	Survey	Number of field trips. % number of people using humanure.
Increased knowledge of hand-washing with soap	Observation, Survey	% number of people washing hands with soap during critical times.
changed community norms regarding various ways of nourishing the soil	Interviews, Survey	% number of people using humanure.
Improved sustainability of school feeding program at Malembe primary school	Survey, Observation, Individual interviews	Frequency of pupils accessing food at Malembe primary school.

Methods

Below is a list of the methods to be used when collecting data during the evaluation.

- Survey questionnaire

- Individual interviews

- Field observations

Sample

The aim of the evaluation is to find out if the campaign is working and identify areas that need improvement as the campaign is being implemented. The results of the evaluation will help the campaign implementers to make necessary adjustments so that the campaign can achieve its objectives. Owing to inadequate information regarding the number of people in each village, proxy population data calculated using information from 2008 Malawi Population and Housing Census (MPHC) report will be used to determine the sample. According to National Statistics Office (NSO) 2008 MPHC report, there are 28, 959 people in the area of T/A Chitukula where the twenty four feeder villages of Malembe primary school are located. Lilongwe District Assembly Socio-Economic profile (SEP) indicate that there are a total of one hundred and eight (108) villages registered under T/A Chitukula (SEP Lilongwe District Assembly, 2010). On average, there are 268 people in each village and a total of 6435 people in 24 villages. However, one of the constructs that I would like to measure is self-efficacy. The tool that was developed by Schwarzer and Jerusalem (1995) and tested in over 28 countries (I will use some of the items from this tool) recommends that the instrument should not be administered to those less than 12 years of age. NSO (Malawi) stratified the population

data at T/A level by 5 year age groups. I will therefore eliminate all those 14 years and under in the sample population. Below is a table with the population of T/A Chitukula clustered into 5 year age groups.

Figure 5.2: Population of TA Chitukula

Age group	Population	Total Population
Less than 1	1173	
1-4	4233	
5-9	4380	
10-14	3677	**13463**
15-19	2632	
20-24	2570	
25-29	2353	
30-34	1829	
35-39	1382	
40-44	963	
44-49	829	
50-54	601	
55-59	621	
60-64	437	
65-69	355	
70-74	261	**15497**
75+	664	

(Source, NSO MPHC report, 2008)

To calculate the average number of people 15 years and older in each village

Total population aged 15 and over   15497

Total number of villages   108

Average no. of people in each village 15497/108= 143

Average no. of people in 24 feeder villages of Malembe primary school

143*24= 3432

Therefore, the proxy total population for the target group is 3432. As already discussed in the evaluation design section, cluster (random) sampling method will be used when

selecting sample villages. 5 out of the 24 villages will be randomly selected using simple random technique (assigning numbers to each village and putting these in a basket and then picking 5 random numbers from all the 24 numbers)to participate in the pre-test and post-test survey questionnaire. From the 5 villages, 100 people will be randomly selected using stratified sampling technique so that representatives from each village are included in the sample. The survey will be administered at household level (20 households from each village). In addition, few people from each category of target group (chiefs, mother group members, pupils, extension workers, other development agencies, elders and parents/guardians) will be interviewed.

This is a pre-campaign and post-campaign non-experimental design that aims at having in-depth knowledge regarding the usefulness of the campaign. All the sampled households will be administered a pre-test (questionnaire) before the launch of the campaign and after one year, the same participants will be given the same test (questionnaire). My assumption is that there will be an increase in the number of households that will make a shift from traditional latrines to eco-san toilets. Individual interviews to a few people from each category of the target group will be conducted every six-months to identify areas that need improvement so that the findings can be used to make improvements as the campaign is being implemented. In addition, observations will be carried out throughout the three and a half year implementation period and the information will be used to improve the campaign. At the end of three years, an external evaluator will be contracted to conduct an impact evaluation. A detailed budget is provided as appendix. This campaign has the potential to serve as a pilot study for a campaign that can target all the primary schools in Malawi.

Plan of analysis

Quantitative data gathered through the survey questionnaire will be analyzed using SPSS and a matched pair t-test will be performed at α (alpha) level of 0.05 .The aim is to determine if the campaign works. Matched pair t-test is ideal in this case because there is only one sample but with different sets of data (those drawn from pre-test and from post-test).

The null hypothesis (H_0) and alternative hypothesis (H_1) can be shown as follows:

$$H_0: \mu = \mu,$$

$$H_1: \mu < \mu$$

Where μ= the mean toilet usage rate of the group before the campaign

μ= the mean toilet usage rate of the group after one year of the campaign

The null hypothesis states that: there is no difference between the mean usage rate of eco-san toilets among community members at Malembe primary school before and after one year of the campaign. My Alternative hypothesis states that: The mean usage rate of eco-san toilets among community members at Malembe primary school will be greater after one year of the campaign than before.

Qualitative data collected through interview, open ended questions on the questionnaire and observations will be analyzed using Semantic construct coding (producing a taxonomy consisting of categories, subcategories and elements) that eventually leads to identification of themes that emerge from the data.

Results of this evaluation could be useful to all beneficiaries of the campaign including potential funders, policy makers, and other development agencies, government of Malawi, the target group and all those interested in sanitation, school feeding programs

and general improvement of people's well-being. Below is the time line for the

campaign (a more detailed timeline will be attached as Appendix B).

Table 5.3: Campaign timeline

Objective	Estimated start time	Measurable short term outcome	Measurable long term outcomes	Performance indicator	Evaluation tool
1.Inspire village headmen to support a shift from traditional latrines to eco-san toilets	April 2013 - ongoing	<u>Outreach Activities are in place</u> Awareness campaigns Field visits	Self-efficacy Collective efficacy Decreased learned helplessness Increased knowledge of composting Increased resource base	Number of eco-san toilets constructed	Survey
2.Encourage mother group members to include advocacy for shift from traditional latrines to eco-san toilets as one way of ensuring that girls enroll and persevere in school	April 2013 - ongoing	Community meetings Trainings Increased skill in composting		Number of people using humanure	Face to face interviews
3.Increase the number of toilets at Malembe primary school by constructing 24 eco-san toilets (11 for girls, 9 for boys, 3 for female teachers and 1 for male teachers)	June 2013- September 2013	Construction of eco-san toilets Drilling of borehole Eco-san proper usage posters	Changed community norms regarding various ways of nourishing the soil Increased number of pupils accessing nutritious meal at Malembe primary school	Number of pupils accessing food at Malembe primary school	
4.Promote hand washing with soap at Malembe primary school and the surrounding villages	June 2013- ongoing	Village health fairs Open school days Construction of community eco-san toilets at market place Awareness campaigns Construction of kitchen			
5. Increase the number of community members who use compost manure to nourish the soil	April 2013- ongoing				
6.Increase the number of children who have access to a nutritious meal at Malembe primary school	August 2014- ongoing	Number of times children are fed at school			

Conclusion

This chapter framed school feeding program in a way that will hopefully promote community participation in the program. The *product* that will be presented to the community at Malembe primary school is the use of eco-san toilet (which will probably be branded as "OMA Toilet") as a viable alternative to traditional toilets. Eco-san toilets are odorless, manure giving and affordable. These three attributes will be highlighted throughout the campaign period and community members will experience the real relief that these types of toilets bring. Eco-san toilets will provide the much needed fertilizer for the school garden, thereby relieving the community members of the burden associated with prohibitive costs that comes with the use of chemical fertilizer.

The behavior (use of eco-san toilets) will be readily available at Malembe primary school, the community market, through village drama, open days, village fairs, and the radio among many *places* where the community members can access the *product*. The *promotion* messages will stress the importance of making eco-san toilets a household necessity; the value of using eco-san toilets properly and the need to always wash hands with soap after visiting the toilet. Finally, evaluation of the campaign will be on-going throughout the implementation period. There will be a questionnaire that will be administered before the campaign is launched in order to gather baseline data. After one year, the same questionnaire will be administered to the same people with the aim of determining whether the campaign is useful and also to detect areas that need improvement. At the end of the three years that the campaign will run, an impact evaluation by an outside evaluator will be conducted to determine the effectiveness of the

campaign. The following concluding chapter discusses implications for carrying out the

outlined social marketing campaign and suggests areas for further research undertakings.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to explore social marketing as a potential strategy for planning school food programs in Malawi. This was done by assessing the barriers and benefits of supporting school food programs at Malembe primary school from the community member's point of view and then investigating how the importance of such programs can be framed and communicated to promote community participation. This study has the potential to be used as a pilot for all the public primary schools in Malawi and thereafter other low-resource countries can draw lessons from it. As noted earlier, many low-resource countries are struggling to make their school feeding programs sustainable. School feeding is a necessary intervention because it targets poor children directly making it an effective social safety net. Additionally, school feeding programs ensure that a child has access to at least one nutritious meal which impacts cognition. Improved cognition facilitates learning. Although the findings from this study cannot be generalized, they still can offer valuable insights to the policy makers, planners, and development agencies on what might be a way forward to ensure that school feeding programs are sustainable.

Using focus group and individual interview data collection tools, this study uncovered barriers and benefits of supporting the school feeding initiative at Malembe primary school. It was unveiled that lack of transparency, coordination and open communication breeds ''cooperation gaps" that threatens the smooth implementation of this initiative. Furthermore, lack of resources to purchase chemical fertilizer, cooking utensils and build kitchen and storage room were highlighted as some of the factors that

have the potential to jeopardize the sustainability of this program. Compounding the challenges were the dependency tendencies exhibited by the participants.

Luckily, the desire to create an environment that provides an opportunity for the pupils to start at an equal footing, at least where food is concerned, and the quest to give hope to the hopeless, motivates the community members to continue supporting the initiative. In addition to school feeding program being seen as an equalizing mechanism, the participants viewed this initiative as an opportunity for them to provide local solutions to the challenges that they face and in so doing, collectively build their community. Guided by the above stated factors, the proposed social marketing campaign focuses on promoting the use of eco-san toilets as a viable alternative to traditional latrines. Among the suggested activities to be implemented by community members at Malembe primary school are: awareness campaigns, field visits, community meetings, trainings and construction works. However, for the campaign to be effective, the community members of Malembe primary school need to work in partnership with government, non-governmental organizations and other development agencies who are passionate about improving human well-being. Using policy, financial and social lenses, this chapter will explore the implications of implementing the proposed social marketing campaign and I will conclude with suggestions for further research.

Policy Implications

The issue of improving sanitation by promoting eco-san toilets rather than traditional latrines that the campaign has chosen to focus on has policy implications that need to be considered. Even though Malawi Government through the Ministry of

Irrigation and Water Development (MGNSP) articulates its desire to "ensure that all people in Malawi own and have access to improved sanitation facilities, practice safe hygiene, and practice safe recycling of liquid and solid waste for sustainable environmental management and socio economic development" (MGNSP, 2008, p. 7), there isn't any deliberate effort to encourage the construction of eco-san toilets in the schools. Currently the toilets that are recommended in public primary schools are the ventilated improved pit (VIP) latrines. As already discussed, eco-san toilets are an avenue for recycling human excreta and are therefore a perfect strategy for implementing the above stated sanitation policy of Malawi Government. Regrettably, the few eco-san toilets constructed in some schools in Malawi are products of donor-driven projects. There is need for the Malawi Government to articulate practical strategies that can facilitate safe recycling of liquids and solid matter so that the stated sanitation policy is achieved. Fortunately, there is an opportunity to recycle human excreta using the existing double VIP toilets in schools that have these types of toilets because of the two shallow pits whose usage can alternate. The pupils can be taught to add cover material after visiting the toilet and after the pit is full, it can be left to sit for a period of 6-12 months just like an ordinary eco-san toilet and the pupils can use the other pit. Double VIP toilets have a door at the back which simplifies harvesting of the manure. Results of this study can therefore be used to stimulate a policy dialogue concerning implementation strategies that reflect the Government desire for Malawians to practice safe recycling of liquid and solid waste to enhance sustainable environmental management and socio economic development.

Furthermore, school feeding requires infrastructure such as kitchen and storage space. Presently, these two structures are not part of the minimum infrastructure requirements for establishing a public primary school in Malawi. As such, community members in targeted schools where Malawi Government with support from donors is implementing school feeding program have the responsibility of building the kitchen and storage space. Bearing in mind that economic status is one of the factors that are considered when targeting schools to benefit from school feeding programs; it is not surprising to note that many communities struggle to fulfill this responsibility. Unfortunately, as discussed in the literature review section, school feeding programs are susceptible to exclusion errors. For instance, Malembe primary is among the schools that were not targeted for the Government run school feeding program and yet the findings of this study have revealed that there are poor children at Malembe primary school. This study has also highlighted the struggle that the community members of Malembe primary school face as regards the issue of building kitchen and storage space. Findings of this study can inspire policy makers to re-visit policy statements concerning infrastructure requirements and ensure that Government takes responsibility of constructing kitchens and storage space in schools that are targeted for feeding program as well as those that have shown interest in starting their own community managed feeding program.

Likewise, findings from this study signal issues of land ownership that have policy implications. As discussed earlier, the main factor that small holder farmers attribute to causing insufficient food is their lack of adequate land for cultivation. Malembe primary school does not have land for cultivation, and it relies on the village headmen to provide land for the school feeding program. Data analysis uncovered the

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reality that even though village headmen were willing to provide some land to the school, they nonetheless pointed out that there is nothing for free these days and as such, they would be charging a small rental fee. Looking at the reasons advanced in support of starting a school feeding program, and considering that lack of food at home was cited as one of the reasons why some pupils go to school hungry, it is evident that some pupils come from poor families. It is therefore not feasible to ask the same poor families to contribute money towards the paying of land rental fees. Consequently, Malawi Government through the Ministry of Lands might be motivated by these findings to re-visit some of the policies that directly address this issue. Interestingly, as you may recall from the literature review section, there is land that is idle to the extent that "as much as 28% of the country's available arable land [in the hands of estate owners] is idle" (Sahley et al., 2005, p 20; see also, Devereux et al., 2006). Hopefully, the findings of this study may stimulate a serious policy dialogue concerning the 28% idle arable land available in Malawi. For how long will this land remain idle? Is it possible for Malawi Government to buy this land from the estate owners and re-distribute it to the poor including public primary schools? These are some of the questions that need to be addressed because one of the essential factors for the success of a community driven school feeding program is the availability of land for cultivation.

In addition, many farmers in Malawi practice rain-fed agriculture. The same holds true with the community of Malembe primary school. Rain-fed agriculture is susceptible to effects of climatic change. As discussed earlier, due to unpredictable climatic changes, people in Malawi sometimes experience heavy rains that sweep away entire farms or they experience prolonged dry spells that kill plants (Magrath, 2010). The policy makers can

facilitate a curriculum dialogue to explore the possibility of allowing for flexibility within the curriculum so that such initiatives as the feeding program can be used as a teaching and learning resource.

Lastly, social marketing strategy that was explored in this study as a potential tool for planning school food programs has not been extensively used in the education field. This study provides a working example that it is possible to use social marketing strategy when planning programs in the education sector.

Financial Implications

The social marketing campaign plan that this study has produced will require finances in order to implement it. The promotion strategy proposed uses multiple media channels. The promotion messages will require a considerable amount of money to develop and implement. In addition, the plan proposes field visits, trainings and construction works. All these activities will need financial resources. The estimated budget in US dollars for implementing the social marketing campaign at Malembe primary school and surrounding 24 villages (estimated total population of 3432) for three and a half years is US$416, 259.49. In the event that the campaign is rolled out to all the 5106 public primary schools in Malawi, the estimated cost will be approximately US$5, 619, 354. 02.

When World Food Program suspended its feeding program in 480 schools consequently affecting 508, 000 pupils, the director of WFP in Malawi said that the organization needed about US$6,000,000 for a period of six months to feed the children in 681 schools with a total enrolment of 700,000 pupils (WFP, 2010). The social

marketing plan that this study has produced has the potential to serve as a pilot for all the 5106 public primary schools. According to Malawi Education Management Information Systems (EMIS) report (2009), there are 3, 306, 926 pupils in these 5106 public primary schools (EMIS, 2009). Granted that feeding 700, 000 pupils for a period of six months costs US$6 million, it follows that the proposed social marketing campaign that will put in place structures to support community participation in school feeding is a worthwhile investment. As a long term goal, Malawi Government through the Ministry of Education, Science and Technology need to incorporate in its annual budget community initiated school feeding program expenses. Such expenses should include money to enable the community to purchase items that are essential to the feeding program such as seeds and cooking utensils. However, there is need for advocacy at the policy level so that government can incorporate such expenses in its budget.

Furthermore, findings of this study point to the important role that mobile service providers can play in fostering development. Participants in the study expressed their desire to receive important messages through text. While the findings of this study offer an opportunity for Government of Malawi to harness its partnership with the private sector, they also provide a worthwhile avenue for the private sector to channel their social responsibility obligations. Policy makers can use this study to stimulate partnership talks with the private sector.

Social Implications

The findings from this study hint at the need to re-visit past practices and re-learn those that were working. For instance, the elders pointed out that they were using animal

waste (cow dung) as fertilizer and they had enough harvest to feed their families. There are worthwhile lessons from the past that can be used to address present challenges. Some people view continued use of indigenous practices as a sign of backwardness. On the contrary, there are valuable lessons to be learned from the past. This study in this sense can serve as an encouragement to those working in development that bringing elders to the center of the development agenda can add value to the process. Using organic manure to nourish the soil is not something new. The elders in this study recalled using organic manure in the form of cow dung. As was discussed in the literature review, there is need to re-socialize so that previously acquired knowledge and skills can be used to ably address the present needs in the society (Sam, 2006). This social marketing campaign proposes that the community of Malembe primary school should re-visit the idea of re-cycling waste, only that this time around the waste is human excreta and not cow dung.

The idea of using re-cycled human excreta to nourish the soil invoked feelings of repulsiveness and disgust. The social marketing campaign crafted in this study is focused on challenging this false impression concerning human excreta. When well-managed, human excreta is a valuable resource that has the potential to make people smile because they no longer have to dread the unpleasant smell associated with traditional latrines and worry about raising money to buy chemical fertilizer for their gardens. The use of eco-san toilets has the potential to relieve the community at Malembe primary school of these worries. This campaign offers an opportunity to establish new routines and adopt new values and beliefs. This study can also provide a practical example for other communities in Malawi to re-assess their values and consider going back to their roots and re-learn

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some of the practices that they used to engage in. Currently, many elders do not take an active role in society in Malawi. This campaign recognizes the valuable role that elders play in community and has deliberately assigned them an active role in the awareness campaign activities.

Finally, findings from this study highlight the important role that team work plays in fostering success and the ability of teamwork to promote cohesiveness among community members. The activities proposed in the campaign require teamwork for them to be successful. The community-driven school feeding program that this campaign wishes to enhance also depends on teamwork for its success. For instance, the findings of this study revealed that members of the community at Malembe primary school were assigned roles. Some villages worked well and fulfilled their roles in a timely manner. However, there were some villages that struggled to fulfill their roles and this factor was singled out as a potential threat to the smooth implementation of the feeding program.

Further Research

The use of social marketing strategy as a planning tool involves carrying out an assessment of barriers and benefits of the behavior being advocated on a segmented audience so that differences among the target group are taken into consideration. After the assessment, the behavior is crafted in such a way that barriers are minimized and benefits highlighted. After taking into consideration the *price* that has to be paid in order for the target group to embrace the behavior, the benefits are bundled together and are presented as the *product* that has to be *promoted* at a *place* where the target audience has easy access. This study carried out the initial process of assessing barriers and benefits

and crafting the behavior. There is need to carry out further research to determine whether the plan that this study has produced works. Can social marketing eco-san toilets lead to an increase in its usage among the community members at Malembe primary school? In addition, can usage of ecosan toilets lead to an increase in using humanure in the field and can this practice increase crop yield to be used to feed children?

The broader goal of this study was to explore social marketing as a potential planning tool that can be used in the education sector. Although social marketing is widely used in the field of public health, its usage in the education sector is minimal. Interestingly, even though school feeding is an education issue, it is also health related. It will be beneficial if research were to be carried out on an issue that is viewed mostly in education terms. For instance, can social marketing strategy be used to boost teacher morale in Malawian rural primary schools?

GENERAL GUIDE FOR FOCUS GROUP DISCUSSIONS

Start with brief introduction of the research after self-introductions.
We are here to learn more about your initiative to start a feeding program at the school. We would like to learn more about how the idea was conceptualized and how you went about putting your idea into practice. The results of our discussion will fed into a plan that will help in mobilizing other community members to become interested in school feeding program just like you are here. Feel free to interrupt us at any point and please be free and open to discuss anything that you feel is important to us. Your names will remain anonymous but we will quote directly at times when writing the report. The results will also be used to influence policy dialogue on this topic and they will also be shared at a public oral defense at UMASS.
So can you please share with us how you decided to start preparing for a school feeding program at this school?

GUIDING QUESTIONS FOR TEACHERS' FOCUS GROUP MALEMBE SCHOOL

1. What are your thoughts on children eating at school?
2. In what ways are you currently involved in school feeding programs? How else could you be involved?
3. What factors might prevent you from getting involved in the school feeding program? What are the challenges of you getting involved?
4. What factors might encourage you to get involved in the feeding program?
5. What are some of the reasons that you think school feeding program is important?
6. What are the challenges of making school feeding programs sustainable? What can you do about it?
7. How did you know about the feeding program?
8. How else do you learn about things/events/functions happening in the community?
9. Is there anything else that you want us to talk about concerning children eating at school?

GUIDING QUESTIONS FOR PUPIL'S FOCUS GROUP DISCUSSION.

1. Can you tell me more about yourself? How old are you and what class are you?
2. When do you wake up to start preparing for school?
3. What do you do at home before coming to school?
4. Do you eat breakfast at home? How often? Who prepares the food for you? (If she/he doesn't eat at home every day, why not?)
5. What do you do at break-time? Do you take food from home to eat? If not why not? Do you take money instead? What do you buy?
6. Did you pass your exam last term? Were you happy with how you performed? If not why?
7. Have you ever heard of some schools where children eat porridge at school? What are your thought about that?

8. If you were to be eating at school, what do you think might be your role? How will you help to keep that program going?
9. How would you tell your friends about such a program? How else do you hear about events/functions in your school/community?
10. Is there anything else that you want us to talk about concerning you children eating at school?

MOTHER GROUP'S GUIDING QUESTIONS

1. What are your thoughts on children eating at school? How important is it?
2. What has been your role in the current initiative to start a feeding program? How have you been involved?
3. Share with us in details about the process of how you came up with this initiative? What was your motivation to do this? What was the process like? What channels of communication did you use? What kind of challenges did you meet? How did you handle such challenges?
4. (**Depending on what participants say in question 3, you may proceed with the following questions**): Since school feeding requires the availability of food, how have you been involved to make sure food is available in the area and in the school?
5. What are the challenges faced to ensure food is produced? (If participants do not mention anything to do with land/inputs then ask the question "In your area, is land/inputs an issue to produce food? If so, how have you handled it in this initiative? How else would you handle it to ensure enough food is produced for feeding program?
6. How as a 'mother group' do you communicate or get communication about issues in the school and community? How was this initiative about school feeding communicated? What are the other forms of effective communication in your community?
7. Is there anything else that you want us to talk about concerning children eating at school?

CHIEFS' FOCUS GROUP GUIDING QUESTIONS

1. What are your thoughts on children eating at school? How important is it?
2. What has been your role in the current initiative to start a feeding program? How have you been involved? How did you come to learn about this initiative?
3. Why have you been involved in such a way? What has been your motivation to participate?
4. Since school feeding requires the availability of food, how have you been involved to make sure food is available in the area and in the school?
5. What are the challenges faced to ensure food is produced? (If participants do not mention anything to do with land then ask the question "Is land the issue in your area to produce food? If so, how have you handled it in this initiative? How else would you handle it to ensure enough food is produced for feeding program?
6. How as chiefs do you communicate or get communication about issues in the school and community? How was this initiative about school feeding communicated? What are the other forms of effective communication with your community?

7. Is there anything else that you want us to talk about concerning children eating at school.

PARENTS/SMC/PTA FOCUS GROUP GUIDING QUESTIONS
1. What are your thoughts on children eating at school? How important is it?
2. What has been your role in the current initiative to start a feeding program? How have you been involved? How did you come to learn about this initiative?
3. Why have you been involved in such a way? What has been your motivation to participate? How else could you be involved?
4. Since school feeding requires the availability of food, how have you been involved to make sure food is available in the area and in the school?
5. What are the challenges faced to ensure food is produced? (If participants do not mention anything to do with land then ask the question "Is land the issue in your area to produce food? If so, how have you handled it in this initiative? How else would you handle it to ensure enough food is produced for feeding program?
6. How as parents do you communicate or get communication about issues in the school and community? How was this initiative about school feeding communicated? What are the other forms of effective communication in your community?
7. Is there anything else that you want us to talk about concerning children eating at school?

ELDERS FOCUS GROUP GUIDING QUESTIONS
The aim of talking with Agogo (elders) is to explore further this concept of food production. It seems it is a critical piece in ensuring that children are fed at school.

1. How did you produce food in the past?
2. How did you handle issues of land distribution and fertility of the land?
3. How do you see these issues being handled now?
4. What are some of the benefits of handling the issues the way it was being handled in the past? And what might be some of the challenges?
5. Were you using artificial fertilizer in the past? If not, how were you ensuring that the land remains fertile (specific practices here).

As a general question to all categories of participants, what kind of toilets do you have? Are they traditional pit latrines? Have you heard of eco-san toilets? If yes what do you know about such kinds of toilets? Is this something that might be of interest to you?

Thank you for your time

	2014											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Recruit Campaign Personnel												
Administer Post-test Questionnaire			■									
Develop creative brief												
Form Health promotion club												
Form promotion composition group												
Training workshops					■	■	■					
Create outreach activities (flyers, jingles etc)												
Meetings with other development agencies												
Meetings with other government departments												
Field visits												
Construction of eco-san toilets												
Drilling of borehole												
Construction of kitchen		■	■	■	■					.		
Purchase of kitchen utensils					■							
Village drama	■	■	■	■	■	■	■	■	■	■	■	■
Radio play, Jingles and other promotional messages	■	■	■	■	■	■	■	■	■	■	■	■
Village fair				■	■							
Open school day												
Ongoing Assessment									■			

2015	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Recruit Campaign Personnel												
Administer baseline survey												
Develop creative brief												
Form Health promotion club												
Form promotion composition group												
Training workshops					X	X	X					
Create outreach activities (flyers, jingles etc)								X	X	X		
Meetings with other development agencies			X	X								
Meetings with other government departments												
Field visits												
Construction of eco-san toilets												
Drilling of borehole												
Construction of kitchen												
Purchase of kitchen utensils												
Village drama	X	X	X	X	X	X	X	X	X	X	X	X
Radio play, Jingles and other promotional messages	X	X	X	X	X	X	X	X	X	X	X	X
Village fair		X	X	X								
Open school day				X	X							
Ongoing Assessment				X						X		

2016						
	JAN	FEB	MAR	APR	MAY	JUN
Recruit Campaign Personnel						
Administer baseline survey						
Develop creative brief						
Form Health promotion club						
Form promotion composition group						
Training workshops						
Create outreach activities (flyers, jingles etc)						
Meetings with other development agencies	■	■				
Meetings with other government departments						
Field visits						
Construction of eco-san toilets						
Drilling of borehole						
Construction of kitchen						
Purchase of kitchen utensils						
Village drama	■	■	■	■	■	■
Radio play, Jingles and other promotional messages	■	■	■	■	■	■
Village fair		■	■	■		
Open school day			■	■		
Campaign evaluation				■	■	■

BUDGET

Campaign budget in US Dollars for Malembe Primary School				
	Year 1 (2013)	**Year 2 (2014)**	**Year 3 (2015)**	**Year 4 (2016)**	**Total**
Expenses:					
Personnel Expenses:					
Salaries & Wages	48,000.00	49,440.00	50,623.20	26,088.70	174,151.90
Fringe Benefits	2,400.00	2,472.00	2,531.16	1,304.43	8,707.59
Non-Personnel Expenses:					
Contract Services Professional Fees	15,700.00	15,700.00		20,000.00	51,400.00
Office Space	-	-	-	-	-
Equipment Supplies	30,000.00	2,000.00	2,000.00	2,000.00	36,000.00
Travel/Related Expenses	15,000.00	-	-	6,000.00	21,000.00
Training Stipends	10,000.00	10,000.00	-	-	20,000.00
Construction	45,000.00	5,000.00	5,000.00	5,000.00	60,000.00
Advertising/air time	15,000.00	15,000.00	15,000.00	-	45,000.00
Total					416,259.49

APPENDIX D

BUDGET JUSTIFICATION

Campaign Coordinator
There will be one campaign coordinator who will be responsible for coordinating all project activities. This is a full-time position requiring experience working in Sub-Saharan Africa. Qualifications include a minimum of master's degree in International Education or related field. Starting salary will be 48,000 US Dollars per annum

Other Personnel
Should the campaign be scaled-up to all the 5106 public primary schools, there will be need to recruit a full-time Research Specialist and an Administrative Officer. Research Assistant will be competent in both qualitative and Quantitative Research methods and his starting salary will be 38,000 US Dollars per annum. The Administrative Officer's starting salary will be 20, 000 US Dollars per annum

Fringe Benefits
Fringe benefits will be calculated at 5% of salary

Equipment
Support is required to purchase the campaign vehicle, 3 computers, 1 heavy duty printer and 1 heavy duty
 photocopier. The catalogue price for the vehicle is 22, 000 US Dollars; 1 Computer is 1, 500 US Dollars (4, 500 US Dollars); Printer 1500 US Dollars and Photocopier 2000 US Dollars

Consultant Services
An external evaluator will be required to conduct an impact evaluation at the end of three years. The evaluators' fee is calculated at 20, 000 US Dollars.

Subcontracts
 Center for Social Research (Malawi) will be contracted to carry out baseline survey and their fees is calculated at 15, 700 US Dollars. They will also be contracted to administer the same survey after one year and the fees is calculated at 15, 700 US Dollars.

Travel/related expenses
The chiefs and some community members will travel to Salima to learn
from a community there about eco-san toilets (15, 000 US Dollars) during the first two years and at 6, 000 US Dollars during the final year.

Training Stipends
There will be various trainings throughout the three and half years that the campaign will run
(creative writing, eco-san construction, usage etc) The trainings stipend is calculated at 20, 000 US Dollars

Construction
There will be toilets and kitchen constructed and also a borehole drilled
The estimated cost for these is 60, 000 US Dollars (this includes maintenance costs).

Advertising/Airtime
Jingles, radio drama, village fairs, village drama and open days will require advertisement.
The estimated cost for these activities is 45, 000 US Dollars

SURVEY QUESTIONAIRRE

Pre-campaign Post-campaign Questionnaire
The purpose of this questionnaire is to learn more about your current sanitation practices. The information that you will provide will be confidential and will only be used for purposes of establishing current sanitation practices in this community. To further keep the information confidential, please do not write your name or the names of members of your household on this questionnaire. Please answer each question truthfully by simply marking the answer that closely describes your response. However, you have the right to skip questions if you feel uncomfortable answering them and thank you for accepting to participate in this survey.

I. Demographic Information

1. Please state your gender   □ Male □ Female

Please state your age   [   ]   please state your village   [   ]

How many people live in your household?   [   ]

What do you do for a living?   □ Farmer □Office work □ Technical

work   [   ]   [   ]

(Specify)   Other (Specify)

2. What is the level of education in your household? Mark the correct box in the

   table below for each member of your household.

Highest level of education	mother	father	siblings	Extended family (specify)	Other (specify)
Do not know how to read and write					
Knows how to read and write but have never attended formal school					
Some primary education					
Completed primary education					
Some secondary education					
Completed secondary education					
University education					

Other (specify)					

II. Toilet usage

3. Do you have a toilet? □ Yes □ No
4. If yes, what type of toilet do you have?

□ Traditional pit latrine □ Improved VIP toilet □ Flush toilet □ Eco-san toilet □

Other (specify) [   ]

5. How much did the toilet cost? [   ]

6. If No, what do you and your household use to relieve yourselves?

□ Other people's toilet □ Bush □ Other (specify) [   ]

7. Do you wash hands with clean water after visiting the toilet? □ Yes

□ No

8. Do you wash hands with clean water, soap or ash after visiting the toilet? □ Yes
□ No
9. When else do you wash your hands? Mark all that apply
□ Before and after food preparation □ Before and after eating □ After changing a child's diaper
□ Every-time the hands get dirty
10. Do you practice farming? □ Yes
□ No
11. If yes, what kind of fertilizer do you use in your garden? Choose all that apply

□ Chemical fertilizer □ Animal waste □ Tobacco left-over's □ Manure from compost

□ Other (specify) [   ]

12. How often do you and members of your household attend village fairs?
□ Once a year □ Twice a year □ Three times a year □ Never □ Do not know what village fair is

13. How often do you and members of your household attend school open days?
□ Once a year □ Twice a year □ Three times a year □ Never □ Do not know what school open day is
14. Have you ever gone on an eco-san field visit? □ Yes
□ No

15. Do you know of organizations that work in this community?   □ Yes
      □ No
16. If Yes, list their names in the box below

The following questions will require you to choose the answer that closely describes how you feel on a scale of 1-4 where 1 shall mean not true at all and 4 shall mean exactly true.

III. Self esteem	Not true at all	Hardly true	Moderately true	Exactly true
17. I feel I do not have much to be proud of				
18. I feel useless at times				
19. On the whole, I am satisfied with myself				
IV. Self-efficacy				
20. When I am confronted with a problem, I can usually find several solutions				
21. Thanks to my resourcefulness, I know how to handle unforeseen situations				
22. I am certain that I can use eco-san (OMA) toilet even though my friends prefer traditional toilet				
23. It is easy for me to stick to my aims and accomplish my goals				
V. Collective efficacy				
24. I am confident that we can improve the quality of life in the community even when resources are limited				
25. Despite our limited resources, we can commit ourselves to common community goals				

26. How do you cook? If you use wood or charcoal, what do you do with the ash?

27. What is your water source?

28. What do you expect of a good toilet?

[   ]

29. During the past year, has any member from your household suffered from hygiene related disease?

[   ]

30. What is your opinion on the re-use of human excreta?

[   ]

31. How do you feel about eating food produced with humanure?

[   ]

Thank you for your time

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