

POSSIBILITIES FOR ALLEVIATING POVERTY THROUGH DAMBO UTILIZATION: A CASE STUDY OF CHOKWE COMMUNAL AREA, GAZA PROVINCE, MOZAMBIQUE

MUNYARADZI MAWERE

Associate Professor, Universidade Pedagogica, Mozambique

ABSTRACT

Mozambique like many other countries in Africa is very rich in natural resources yet the country continues to be haunted by poverty even to date. While colonialism and the civil unrest that rocked Mozambique after independence in 1974 are largely blamed for aggravating poverty levels in the country, poor and under-utilization of natural resources is also a contributing factor. Though there are many poorly and under-utilized resources in Mozambique, this paper focus on dambo utilization in the vast plains of Chokwe district in Gaza province. To assess the utilization of dambos in Chokwe, a survey was carried out. From the qualitative analysis of data obtained, the paper notes that there is under-utilization of dambos in Chokwe. Following this observation, the paper argues that dambo utilization could possibly alleviate or eradicate poverty if properly done. The piece then urges people of Chokwe communal area to seriously consider sustainable utilization of dambos in their area as a drive to alleviate poverty. Further to that, the government of Mozambique and donor agencies is urged to assist Chokwe people with knowledge/skills and financial resources necessary to sustainably utilize the rich dambos in the area as a way of improving their lives and fighting the historically long cataclysmic extreme poverty in the country.

Key words

Poverty, alleviation, dambo, utilization, Chokwe, Mozambique

INTRODUCTION

Mozambique, like many countries in Africa suffers from a number of problems ranging from poverty, corruption, poor governance and low productivity. While these problems are interconnected to the extent that none of them can be fully addressed without the need to address others, because of space and for purposes of this study I focus more on the problem of poverty.

Extreme poverty in Mozambique, especially in the rural areas has stood out as a key indicator of the cataclysmic socio-economic challenges that have characterized Mozambique for decades now. The 16 years of civil unrest, political tensions and entanglements after national independence in 1975 in Mozambique exacerbated an already precarious socio-economic and political situation in the country that contributed to extreme state fragility and ushered in a cocktail of economic crisis in the country. OECD as quoted by Makoche Kanwa and Kwaramba (2009:4) defines fragile states as “those where the state power is unable and/or unwilling to deliver core functions to the majority of its people: security, protection of property rights, basic public services and essential infrastructure” leading to socio-economic tumultuous situations even two decades after civil war in Mozambique.

Besides the blame laid on the political episode that followed immediately after national independence, the economic crisis in Mozambique has also resulted from high levels of corruption and poor or sometimes underutilization of resources. All these factors have had catastrophic consequences on the national economy, the long struggling agricultural sector (since the colonial period), and the lives of the already poorest and most disempowered masses in the rural areas. What is both worrying and surprising is that the overwhelming majority of Mozambique’s population affected by extreme poverty resides in rural areas where land is abundant and a basic means of survival and source of income. This is echoed by *Censo-census-* (2007) and Rambe and Mawere (2011) who report that: “71% of Mozambique’s total population lives in the rural areas” the geographic distribution of the population, many of whom live in remote, rural areas. A critical

question arise: “If majority of Mozambique’s population lives in the countryside where natural resources and land are abundant, why the country remains poor?” While this question will be responded to later, it is worth noting that poverty in Mozambique, as elsewhere in the developing world, is predominantly a rural phenomenon, though according to reported data Africa has experienced the highest level of rural-urban migration relative to other continents, in part as a result of policies which have discriminated against agriculture and promoted industry (Lele and Adu-Nyako 1991). Poverty constrains the general development capacity of a population as they do not have access to the essentials to improve their lives on a sustainable basis; it deeply threatens the country’s development at all levels. Also, poverty sometimes cultivates ‘mental poverty’ by inculcating a dependency syndrome in the affected people’s minds. Such factors compromise the government and significant success of the country’s socio-economic development efforts as they put the country at great risk of extreme poverty. Possibly, because of these factors among others, Mozambique remains one of the poorest nations in the world and more than 80% of its citizens in rural areas live on less than a US\$1 a day, and lack basic services like schools and hospitals (Rural Poverty Report-Mozambique 2007; Africol.com 2008). It should be noted that the concept of extreme poverty is difficult to define with precision as it keeps on changing. In this study, I identify with the World Bank’s 2005 and 2010 definition that “extreme poverty is living on less than US\$1.25 a day. This meant living on the equivalent of US\$1.25 a day, in the US, buying US goods. In 2011, this means surviving on the equivalent to US\$1.50, AUD\$2 or 1 pound per day” (http://en.wikipedia.org/wiki/Live_below_the_line; World Bank 2010). Thus, according to this definition, majority of Mozambique’s population live in extreme poverty as they live on less than a US\$1 a day, and lack basic services like schools and hospitals.

That said, this paper critically reflects on the utilization of dambo natural resources and, in particular on how they (dambos) can possibly be exploited to alleviate poverty in Mozambique. It advances the position that the extreme poverty that have haunted Mozambique, especially since post colonial independence is a result of poor and under

utilization of natural resources such as dambos, among other reasons. The paper thus lays blame on the prevailing socio-political and economic situations in Mozambique as apparently responsible for creating mental poverty (in the rural people) and opportunities for a plethora of economic crimes (like corruption) for others in state institutions. This is predicated on the adage that poor governance breeds misdeeds. From the foregoing, I argue that good governance and sustainable exploitation of some natural resources such as dambos that have been laid idle for decades now can help alleviate or eradicate extreme poverty in Mozambique. This is because since extreme poverty in Mozambique is predominantly a rural phenomenon, an effective way to alleviate it is to increase opportunities for income generation and sustainable exploitation of natural resources by the rural majority. I further argue that dambos in Mozambique should be used as bridging zones for the integration and alignment of locally generated based knowledge and scientific knowledge through creating liberal spaces for the rural people's experimentation with different forms of practices (in dambos) that foster sustainable development and aims at eradicating extreme poverty.

CONCEPTS OF DAMBO AND POVERTY

The concept of dambo though gained prominence in intellectual discourse over the years in Africa and beyond, has not been easy to define with precision. As such, a number of definitions have been conjured by different scholars. For Watson (1964), Ollier et al. (1969) and Acres et al (1985), 'dambos'- also termed mbugas, vleis and fadamas-are seasonally saturated, grassy, channelless, gently sloping valley floors that commonly occupy the lowest topographic positions in African catenae or "land systems". In more or less the same way, Bullock (1988) defines dambo as one of several dialectal terms used to describe the seasonally saturated, grassy, generally treeless narrow depressions covering as much as 20% of the plateau regions of central and southern Africa. This is to say that dambos are part of a range of habitat types known as wetlands. In some quarters, particularly in south African region, dambo also known as "bani" (in Shona of Zimbabwe) and "vlei" (in Afrikans-South Africa) has been defined as a Bantu term used to describe the extensive seasonally saturated, grassy depressions common to central and

southern Africa (<http://www.geo.utah.edu/dambo/index.html>). It is worth mentioning that while most dambos are waterlogged for the larger part of the year, most of them dry out especially at the surface during winter season (where they receive rainfall in summer). As noted by Mackel (1985), the “sponge-like” center of most dambos stays moist even during the dry season, sustaining the higher-density herbaceous vegetation in this zone. This connotes that the distinctive characteristic feature of dambos is that they conserve moisture even during dry season, but while they are waterlogged for the larger part of the year, most of them dry out especially at the surface during winter season (where rain falls in summer). For this reason, dambos are also characterized by dense grassy vegetation.

As noted by Acres et al (1985) and Von der Hevden (2004), the other important characteristic feature of dambos is that they have a relatively planar topography ($1/2 - 2^\circ$ slope) which makes them produce little hydraulic energy, facilitate soil saturation and inhibits channel formation. This agrees with the observation by <http://www.geo.utah.edu/dambo/index.html>, that dambos are relatively flat ($1/2 - 2^\circ$ slope), which inhibits drainage and the formation of streambeds.

Like the concept of dambo, the concept of poverty has been difficult to pin down throughout Mozambique’s history and especially since the colonial era through post independence. Yet since Mozambique’s independence from Portugal in 1975, one of the major concerns of the national government and donor agencies in the country has been to fight poverty. The emergency of this concern has been largely a result of observed considerable effects of certain economic reform programmes the country such as Economic and Structural Adjustment Programme (ESAP), among other reasons.

It should be remarked, however, that though the phenomenon of poverty is not something unique to Mozambique and even the world’s history, a quick glance at the relevant literature shows that there is no general consensus on any meaningful definition of poverty (Schubert, 1994; NISER, 2009). In fact, the concept of poverty has been understood and defined differently by different people resulting in various definitions

being conjured for the same concept. Ogwumike (1991), for instance, defines poverty as a household's inability to provide sufficient income to satisfy its needs for food, shelter, education, clothing and transportation. It should be acknowledged that Ogwumike's definition captures the important indicators of poverty. However, it falls short by failing to include the aspect of healthy which is also a critical aspect in the definition of poverty. Such a short fall is also notable in the former President of the World Bank, Robert McNamara's definition. McNamara (1995a; 1995b), defines poverty as a condition of life so degrading as to insult human dignity. While McNamara's understanding captures the notion of poverty, it doesn't shed more light on how poverty as a condition of life degrades and insult human dignity. A more precise definition and aspects of poverty is perhaps captured in The Ninth Report of the Development Policy of the Federal German Government which states that people affected by poverty are unable to lead a decent life (BMZ, 1992: 13). The report elaborates on how people affected by poverty are unable to lead a decent life by listing the following aspects of poverty:

poverty means not having enough to eat, a high rate of infant mortality, a low life expectancy, low educational opportunities, poor drinking water, inadequate health care, unfit housing and a lack of active participation in decision - making processes.

PROBLEM BACKGROUND AND GEOGRAPHICAL DESCRIPTION OF THE STUDY AREA

Mozambique is a country that is found along the western coast of the Indian Ocean. As such, its greater part especially in the southern provinces is covered by dambos. This study was however not conducted in the whole of Mozambique, but in south Mozambique and in particular Chokwe district of Gaza province using Chokwe communal area as a case study. Chokwe is located close to the Indian Ocean, on the southern side of Limpopo River, which run through the province emptying into the Indian Ocean near Xai-Xai city. In terms of agricultural regions, Chokwe is in region 2. It is about 230 km north of the capital city, Maputo, and is in a wide, fertile plain where rice and tomatoes are grown though not at a large scale. Chokwe which shares borders with

Bilene and Xai-Xai districts in the south and east respectively, has a population estimate of 61 666 (<http://en.wikipedia.org/wiki/chokwe>, 2008). The relief of the area is generally flat and is characterized by vleis and isolated trees. The altitude of the area is about 30 m above sea level but with some low lying areas below sea level. The area has warm to hot summers and cool winters. The mean annual temperature is about 30°C. The rainfall though falls throughout the year, depending on the year and influence from the sea, is mainly conventional and occurs between November and March. The climate of the area is the tropical type as it includes one rainy season, one dry season; it is hotter during dry season and cooler during wet season. The mean annual rainfall for the area is about 500 - 750 mm per year with vegetation consisting of a Tropical dry savannah.

It is worth noting that the larger part of the communal area is covered with dambos, the smaller part of which was converted into an irrigation scheme (for wheat and tomato commercial farming) during the Portuguese rule. The Portuguese left the scheme immediate after independence in 1976 and it (the scheme) fell in the hands of the state. Thus as Tanner (1993) noted, the history of land occupation in Chokwe is complex and contentious. The history illustrates a long-term process in which local people have experienced one round of land dispossession and repossession at the hands of the Portuguese, and a second round of dispossession and repossession at the hands of the FRELIMO government. Yet as a researcher on environment and development related issues on southern Africa, I have come to the realization that most researchers on dambos devoted their attention to the general description of dambos (Acres et al 1985; Mackel 1985; Bullock 1988; Von der Heyden 2004) and land disputes (Tanner 1993), without tackling some specific important issues, for example, exploring how dambos can be used as a drive towards poverty alleviation. The research on dambos in Africa and in particular Mozambique thus “makes a sorry reading with its failure to document, by default or otherwise,” (Mawere, forthcoming) the various ways through which dambos can be exploited to alleviate poverty in the countryside. The consequence is that dambos remain an idle resource either poorly utilized and or underutilized by the rural majority. Their (dambos) potential to alleviate or eradicate extreme poverty of the rural population

remains underestimated and therefore undocumented. This is the situation in which people in Chokwe communal are currently in.

One more important thing to note is that during the pre-colonial era, the Chokwe people practiced shifting cultivation, hunting and gathering in these dambos. Traditional vegetables and legumes like *coleus esculentus*, *corchorus olitorius*, *amaranthus gracilis*, *ipomea aquatic forsk*, *momordica balsamina* and *sonchus oleraceus* (*tsenza*, *guche*, *m'boa*, *terere*, *chidledlelane*, *cacana/ncaca* and *chinhamicaca*, *nlhavi* respectively in local Shangani) (Tembe 2008; Interviews 2010) among others, were mainly grown for domestic consumption. Animals like dambo mice, *mavhondo* and hares were also hunted and fruits like *hute* (*syzigium cordatum*) coconut and cashew nuts harvested. This scenario changed dramatically with the Portuguese's settlement and *prazor* (commercial farms) system in Mozambique. The area that occupies Chokwe was designated to commercial activities, mainly rice growing. This saw the Chokwe people losing their land to the Portuguese settlers, only to get it back after independence. Below are the satellite map of Chokwe and Gaza province maps, Mozambique (fig 1 and 2 respectively).

Fig1



Adopted from Mozambique google satellite maps (accessed on September 5, 2011)

Fig 2



Adopted from Mozambique-map-admin (accessed June 12, 2010)

The next section of this study focuses on the method(s) employed to carry out the research.

METHODOLOGY

This study was carried out between August and October 2010 in Chokwe communal area in southern Mozambique. As part of research design, the researcher relied on literature studies, content analysis, observation and in-depth interviews. A selected sample of 36 people (18 female and 18 male) were conducted during the research. The sample size of 36 was considered sufficient in providing the general perceptions of the Chokwe people on the utilization of dambos. The researcher observed some of the activities that take place in the Chokwe dambos such as harvesting of traditional vegetables, cattle

pasteurization, fishing (in some remnant pools) and hunting. The field observation was used to ascertain the field site and what really happened in the site. To supplement data obtained through field observation, interviews were conducted to get more information on how the dambos were utilized to improve people's lives and to determine if the dambos were fully utilized or underutilized by the local people.

Participants for this study were drawn from different societal classes of Chokwe communal area, ranging from the educated to the uneducated and the working to the non-working class. This was done with the hope to obtain a balanced research result that speaks for the whole communal area. The age group of the participants ranged from 15 to 65 years. This age group was considered appropriate for the study given that most of the people involved in direct use of natural resources and other issues related to economic development in Chokwe communal area are within the aforesaid age range. Equal number of men and women were sampled for the mere reason that both sexes should be equally represented and participate in socio-economic issues that affect their community. The researcher administered questionnaires with both open and closed items (open questionnaire and closed questionnaire) to the participants in the different areas they were found. The open questionnaire was used as it enables the respondent to reply as s/he likes and does not confine the latter to a single alternative (Behr 1988). In fact open questionnaire evokes a fuller and richer response as it possibly probes deeper than closed questionnaire by moving beyond statistical data into hidden motivations that lie behind attitudes, interests, preferences and decisions (Mawere 2011). On the other hand, the closed form of questionnaire was used because it facilitates answering and makes it easier for the researcher to code and classify responses especially in this case where a large number of questionnaires were to be dealt with. Both questionnaires (open and closed) were used because in practice, a good questionnaire should contain both open and closed forms of questions so that responses from the two forms can be checked and compared (Behr 1988). The participants responded to questionnaire items individually and participation was voluntary. Participants were also assured of the confidentiality of their responses and to show the genuinity of the assurance, participants were asked not to

identify themselves by names. Collected data were tabulated to show frequencies before being subjected to evaluative analysis. The Tables 1 and 2 respectively contain details of the people participated in the study and the data that was gathered during the study:

Table 1 of 2: Details of the people who participated in the study

Occupation	Gender	
	Male	Female
Cattle headsman	3	2
Village head	2	1
Fisherman	2	1
Peasant Farmers	5	7
Students in public education	2	2
Hunters	2	1
Students in tertiary education	2	2

Table 2 of 2: Responses to closed questionnaire items

ITEM	RESPONSES		
	Strongly agree	Strongly disagree	Uncertain
1. There is extreme poverty in Chokwe communal area.	32	4	0
2. Dambos are useful resources to human livelihood	35	0	1
3. Dambos in Chokwe are underutilized.	25	10	1
4. Dambos in Chokwe communal area should remain idle and unexploited.	4	35	1

5. Dambos can be used to alleviate poverty in Chokwe communal area and beyond.	20	10	6
6. Dambos can be used for a wide range of economic activities.	25	10	1
7. Dambos should be used only for hunting and grazing.	4	31	1
8. Dambo utilization should be controlled to ensure sustainable use and development.	28	6	2
9. The number of Agritex officers in Chokwe communal area (if any) should be increased.	30	5	1
10. There should be government and non-governmental initiatives on dambo utilization.	30	5	1

DISCUSSION

The results in Table 2 show both positive and negative perceptions on the utilization of dambos. This will be discussed later in this section. I will quickly note that majority (88, 9%) of the respondents confirmed that there is extreme poverty in Chokwe communal area. This concurs with the Rural Poverty Report-Mozambique (2007) and Africol.com (2008) which noted that Mozambique is one of the poorest nations in the world and more than 80% of its citizens in rural areas live on less than a US\$1 a day, and lack basic services like schools and hospitals. Yet poverty in Mozambique is ‘a tale of two cities’ where there are both extremely poor people and very rich people. This kind of scenario has been made possible by the fact that wealth in Mozambique is unfairly distributed. It [wealth] is in the hands of the minority who sometimes benefit and continue to enrich themselves through unscrupulous means. Perhaps this explains why 11, 1% of the respondents strongly disagreed that there is no extreme poverty in Mozambique. The unfair distribution of wealth in Mozambique is well captured by Hanlon who confirms that “besides assistance from international organizations and the 4. 5% economic growth

of Mozambique, the number of poor people in the country is ever increasing” (Verdade, 04/12/2009).

On whether dambos are an important resource to the Chokwe people’s livelihood, an overwhelming majority (97, 2%) strongly agreed. This is buttressed by Tembe (2008) who notes that Gaza province (in which Chokwe is a district) is home to indigenous vegetables and leguminous species such as *coleus esculentus*, *corchorus olitorius*, and *amaranthus gracilis*, among other things. This was further confirmed by one of the respondents who remarked that “it is a historical truism that dambos are an important resource to the people in this communal area as most of us depend, in one way or another, on the dambos for survival”. As such, majority (86, 1%) agreed that dambos should not only be used for grazing and hunting, but for some other socio-economic activities.

It should also be noted that there were positive and negative perceptions with regard to dambo utilization in Chokwe communal area. This means that there were mixed feelings among respondents in Chokwe communal area on this topical question. Such mixed feelings were very much visible on the question whether dambos can be used to alleviate poverty in Chokwe communal. 55, 6% strongly agreed, 27, 8% strongly disagreed and 16, 7% were uncertain. Reasons for these mixed feelings were varied but the major one was that people in Chokwe communal area have different levels of understanding and ambitions. Students in tertiary education, for example had a strong conviction that dambos can be exploited sustainably in a productive sense. One of the respondents who were a student at Universidade Pedagogica, Gaza commended: “I strongly believe that the people’s lives around here can improve greatly if the people are furnished with expertise on sustainable utilization of the dambos”. Most of those who strongly disagreed and were uncertain revealed that there were either hidden agendas or ignorance by some locals on the utilization of dambos. One of them thus remarked: “We have always been poor with these dambos around us. I therefore strongly disagree that dambos can alleviate our poverty in any way.”

There were also mixed responses on whether dambos in Chokwe communal area were being underutilized. Majority (69, 4%) strongly agreed. One headman in the area remarked: “It is undeniable that our dambos here are being underutilized as one can easily see that the larger part of them is just idle. I believe we have never utilized this resource fully since we settled here”. As a researcher, I was agreeable to this remark as the first thing I observed when I first entered into this communal area was the vast piece of idle dambos. The pieces seemed not to hold neither aesthetic nor economic significance to the locals besides serving as source of their livelihood. Perhaps this explains why 27, 8% of the respondents strongly disagreed and 2, 8% were uncertain. This result was agreeable with the result on whether dambos can be used for a wide range of economic activities were 69, 4% agreed but still 27, 8% strongly disagreed and 2, 8 % uncertain.

While a larger part of the dambos was idle, majority (97, 2%) strongly agreed that dambos should not remain idle as they were. Action was required, yet extreme poverty and lack of knowledge on how best dambos can be utilized were cited as drawbacks. It is from this realization that the majority (83, 3%) of the respondents strongly agreed that there was need for government and donor agencies/non-governmental initiatives on dambo utilization. Agritex Officers who can teach locals good farming methods were also cited by the majority (83, 3%) as a requirement even if the government and non-governmentals were to come in with financial assistance. Those who were uncertain (2, 8%) and strongly disagreeable (13, 9%) were perhaps hopelessly affected by their poverty. They were no longer optimistic that any kind of intervention (either from the government or otherwise) can alleviate their poverty. This was observed in one of the respondents who bitterly remarked: “We are now tired of empty promises from politicians and no longer have faith that our situation here can be improved in any way. We were born and bred in poverty and so can’t hope for anything better”. This hopelessness is a clear testimony that extreme poverty affects both the physical and psychological states of individuals to the extent that it cultivates yet another form of poverty-mental poverty.

The results discussed above clearly show that a lot more is desired to be done in Chokwe to boost locals' morale and improve their lives, socially and economically using some of the locally available resources in the area such as dambos. The next section of this study focuses on recommendations that might be useful for the Chokwe people to consider if they are to alleviate their poverty using the underutilized dambos in the area.

RECOMMENDATIONS

As previously highlighted, the discussion of results obtained from this study have indicated that serious action is required if extreme poverty in Chokwe communal area is to be alleviated or eradicated using the locally available resources-dambos. It was clear that people in Chokwe require civic education/intellectual empowerment on how they can best sustainably exploit their major resource-dambos-to alleviate poverty. Yet such an initiative to uplift the entire community and mitigate poverty can only be taken by concerted effort of both the government and donor agencies. This can be referred to as the first phase in the elimination of extreme poverty. It should be noted that this first step initiative is critically important as it is now generally believed that most integrated projects fail chiefly because they are too complex and try to do too much too quickly as well as based on very little knowledge of the precise constraints the poor households face (Lele and Adu-Nyako 1991). Thus conscious participation of the local population in projects that directly affect their lives and communities is necessary if meaningful and sustainable development is to be attained.

After the first phase, financial aid to help the locals to start projects and for technological change (appropriate technological advances/purchased inputs that suit constraints faced by the local community) could now be issued out. Projects that can be done in the Chokwe dambos are many. These include: brick moulding, poultry, piggery and the growing of food crops that do well in dambos such as sugarcane, banana, rice, tomatoes (in mid dry season), wheat and yams. Such projects have been successfully launched in some parts of Mozambique where dambos are found. A good example is brick

manufacturing in Magude district of Maputo province where locals are sustaining their families by commercially manufacturing earth bricks in dambos. Yet, the soils in Chokwe dambos are also suitable for earth brick manufacturing. An interview with Pedro, one of people involved in the Magude project, revealed that though they lack sophisticated brick moulding machines, the business is quite viable. He thus remarked, “Yaah, our project is doing very well. It’s only that we do not have advanced machine for our work. For this reason, we are failing to meet demand as some of our customers come from as far as Maputo for the bricks”. Rice and tomatoes are also doing very well in the dambos around Chokwe town where irrigation farming, though at a small scale, is taking place. All these successes in other dambos in Mozambique clearly show that the possibility of alleviating poverty in the Chokwe communal area through careful dambo utilization is very high if initiatives are seriously undertaken. Such projects as those named above, though small are important in poverty alleviation because they act as the engine of national economic growth through the generation of growth linkages.

Another way of helping the Chokwe people out of their extreme poverty through dambo utilization is to introduce Agritex Officers in the communal area. According to the information provided by respondents, there is currently no Agritex Officer working in the communal area. Agritex Officers would help promote participation of the rural community especially in farming activities by equipping the people with knowledge, skills and advices on projects different projects related to farming. This is what scholars like Abrams (1996) protested for when he contends that in community-based projects the community should control the project and make important decisions, although professionals such as engineers may provide expertise and finance may be provided by external financial sources. This initiative thus would not only boost production in the dambos, but also encourage sustainable utilization of the dambos and participation of the rural population in development issues; it promotes the rational use of available resources and maximize production and incomes.

Third, there is need to improve infrastructure in Chokwe communal area and establish an efficient marketing environment to enhance agricultural growth as well as growth of other such projects as earth brick manufacturing. As Lele and Adu-Nyako (1991) noted rural infrastructure development needs to be accorded top priority. For the duo and indeed so, rehabilitation and maintenance of rural roads are essential for transporting the expected surplus to markets; incidents of agricultural produce rotting in remote parts of a country for lack of roads or because the roads are impassable are common in Africa. This is to say that as long as there is poor infrastructure (as I observed in Chokwe communal area during this research), then even if the first and second recommendations are satisfied, it will remain difficult to maximize returns to the rural producers. Yet, improving the human capital of the rural poor will help create productive employment opportunities that outpace high population growth rates and therefore alleviate or eradicate their (the rural poor) poverty.

Lastly, it should be remarked that while the recommendations discussed above have the potential to eradicate extreme poverty and induce growth in the national economy, it is still possible for any benefits of these programmes to bypass the targeted group-the poor. Generally speaking, this may be accounted for by factors such as natural disasters, wars, mass migrations, corruption and illiteracy, among others. However, in Mozambique the major factor is likely to be corruption. This is because corruption in the country has become a chronic problem affecting almost all government sectors and social systems. Mozambique was ranked joint 130th out of 180 countries in the 2009's edition of the Corruption Perception Index (CPI), published by the anti-corruption NGO, Transparency International (TI) (allAfrica.com 2009). Such a scale of corruption is therefore a cause for alarm as corruption is normally a symptom of bad governance and structural weaknesses with the potential to undermine Mozambique's future economic development. This means that if the suggested recommendations are to be successfully implemented and catastrophic consequences prevented, there is need for bold steps and tangible political commitment by the government to eradicate corruption. Yet to achieve this would also require the government to significantly increase its accountability and efficiency by

passing new laws and establishing new institutions (like anti-corruption programs) aimed at stamping out corruption. Once these are in place, it becomes possible to indiscriminately prosecute trespassers who divert and facilitate leakages of subsidies, among other offences.

CONCLUSION

This paper has argued that the poverty problem faced by Mozambique due to underutilization of natural resources, among other problems, is not unique to Mozambique, but resonant of many developing countries. However, high levels of corruption, illiteracy and bad governance make Mozambique more vulnerable. Lack of infrastructures such as roads and shortage of qualified Agriculture Extension Officers to teach/empower peasant farmers in the rural areas even aggravates the situation leading to the perpetuation of extreme poverty in many of Mozambique's rural areas. In view of this observation and the results obtained from the study, it has been argued that the Government of Mozambique and donor agencies should make concerted effort to educate its citizens (through civic education), stamp out corruption, and improve infrastructure in Chokwe communal area to ensure efficient transportation of both inputs and outputs in the area. In this study, Chokwe becomes a representative of all other rural areas in Mozambique and beyond facing similar problems.

More importantly, the paper has argued from results obtained that there is possibility of alleviating poverty in Mozambique's rural areas such as Chokwe communal area through increased utilization of natural resources like dambos. Yet for this possibility to materialize the paper has recommended government and donor agencies to empower the disempowered rural people intellectually and financially. Such initiatives are important as they eradicate mental/intellectual poverty (which is the most dangerous form of poverty) before fighting socio-economic poverty. The initiatives also promote the people at grassroots to actively participate in resolving problems that directly affect them such as poverty.

REFERENCES

Abrams, L.J. (1996). 'Review of Status of Implementation Strategy for Statutory Water Committees', unpublished report. Pretoria: Department of Water Affairs and Forestry.

Acres, B.D. et al. (1985). African dambos: their distribution, characteristics and use. In Thomas, M.F. & Goudie, A.S. (eds.), *Dambos: small channelless valleys in the tropics*. Zeitschrift für Geomorphologie, Supplement band, 52: 63-86.

Afrol.com, (2008). Available online @ <http://www.afrol.com/Mozambique>. (Accessed on August 26, 2011).

allAfrica.com. (2009). 'Mozambique: Country performs poorly on corruption index'. Available online @ <http://allAfrica.com/> (Accessed on September 6, 2011).

Behr, A.L. (1988). (2nd ed). Empirical Research Methods for the Human Sciences, Durban Butterworths.

BMZ. (1992). Federal Ministry of Economic Co-operation and Development: Ninth Report on German Government Development Policy, Bonn.

Bullock, A. (1992). Dambo Hydrology in Southern Africa - Review and Reassessment, *Journal of Hydrology*, 134: 373-396.

Censo (Census), Mozambique, (2007).

Interview with Chokwe Communal residents (August to October 2010).

Lele, U. and Adu-Nyako, K. (1991). 'An integrated approach of strategies for poverty alleviation: a paramount priority for Africa', A paper prepared for the annual meeting of the African Development Bank Group, Abidjan: Cote d'Ivoire.

Mackel, R. (1985). Dambos and related landforms in Africa – an example for the ecological approach to tropical geomorphology. In M.F. Thomas & A. S. Goudie (Eds.), *Dambos: small channelless valleys in the tropics*. Zeitschrift für Geomorphologie, Supplementband, 52: 1-23.

Makochekeanwa, A. & Kwaramba, M. (2009). *State Fragility: Zimbabwe's horrific journey in the new millennium*. A Research Paper Presented at the European Report on Development's (ERD), Accra: Ghana.

Mawere, M. (2011). A critical investigation of environmental malpractices in Mozambique: A case study of Xai-Xai communal area, Gaza Province, *Educational Research Journal*, Vol. 2 (2) 874-883.

Mawere, M. (2012). Ethical quandaries in spiritual healing and herbal medicine: A critical analysis of the morality of traditional medicine advertising in southern African urban societies, *Pan African Medical Journal*. Vol. 2012; 11:29.

Mozambique google satellite maps (Accessed on September 5, 2011). Available online @ <http://www.maplandia.com/mozambique/gaza/chokwe>

Nigerian Institute of Social and Economic Research (NISER). (2009). *Poverty Alleviation in Nigeria*, NISER, Ibadan.

Ogwumike, F. O. (1991). A Basic Needs Oriented Approach to the Measurement of Poverty in Nigeria, *NJESS*, Vol. 33, no 2, 105-119.

Ollier, C.D. et al. (1969). Terrain classification and data storage: land systems of Uganda. M.E.X.E. Report No. 959, *Military Engineering Experimental Establishment*, Christchurch, Hampshire, U.K.

Rural Poverty Report-Mozambique, (2007).

Rambe, P. and Mawere, M. (2011). Barriers and constraints to epistemological access to online learning in Mozambique Schools, *International Journal of Politics and Good Governance*, 2 (2.3 Quarter III): 1-26.

Schubert, Renate. (1994). Poverty in Developing Countries: It's Definition, Extent, And Implications. *ECONOMICS FRG*, Vol. 49/50.

Tanner, C. (1993). 'Land disputes and ecological degradation in an irrigation scheme: A case study of state farm divestiture in Chokwe, Mozambique', *Paper presented to Land Tenure Center*: University of Wisconsin-Madison.

Tembe, M.J. 2008. 'Indigenous vegetables and legumes' importance, utilization and marketing in Gaza Province, Mozambique', Paper presented at the First Scientific and Technological Journeys of Mozambique. *Lutheran World Federation, Mozambique*: Maputo. Available online @ <http://www.mct.gov.mz/pls/portal/url/ITEM/5017142A159E9D4CE040007F01004B9>.

Verdade Jornal-Newspaper, (2009).

Von der Heyden, C.J. (2004). The hydrology and hydrogeology of dambos: a review. *Progress in Physical Geography*, 28: 544-564.

Watson, J.P. (1964). A soil catena on granite in southern Rhodesia, I. Field observations. *Journal of Soil Science*, 15: 238-250.

Wikipedia, (2008). Chokwe, Mozambique, Available online @
<http://en.wikipedia.org/wiki/chokwe>. (Accessed on September 5, 2011)

Wikipedia: Live Below the Line. Available online @
http://en.wikipedia.org/wiki/Live_below_the_line. (Accessed on September 5, 2011).

World Bank. (1995a). *World Development Report*, Washington D.C.

World Bank. (1995b). *Social Dimensions of Adjustment: World Bank Experience, 1980-1993*, Washington D.C.

World Bank. (2010). Extreme poverty rates continue to fall, Available online
@<http://www.worldbank.org>. (Accessed on September 6, 2011).