

Master thesis

Small and Medium Enterprises (SMEs) and Sustainable Development: The Case of Makonde Wood Carvers in Mwenge, Dar-es- Salaam Tanzania

By

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The master thesis is carried out as a part of the education pursuit at the University of Agder and is therefore approved as such. However, this does not imply that the University answers for the methods that are used or the conclusions that are drawn.

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ABSTRACT

In recent years we have seen an increase in demand for the wood carvings products especially those made using 'Mpingo' tree. The industry has also been a source of employment to the majority of Makonde people and non-Makonde people conducting carving activities. Despite its basic social and economic value, both to the carvers and all those who are engaged in the carving activities, it has been noted however that with increasing demand for the 'Mpingo' tree it is likely that the species is might be depleted if strong measures are not taken to assure that the species is sustainably harvested.

This study therefore was aimed at assessing the sustainability of the carving activities and in so doing the study assessed the impact of the carving industry to the economic welfare of the artists and analyzed the contribution of the Makonde wood carving activities in the depletion of the 'Mpingo' tree.

The study was conducted at Mwenge in Dar-es -Salaam, Tanzania and Makonde wood carvers were the case study.

The study used the qualitative research strategy and the methods of data collection included questionnaires, observation, group discussions and interviews. In addition, secondary data from the Ministry of Natural Resources and Tourism were used and analyzed.

The findings showed that the carving activities constitute the major source of income for the Makonde wood carvers at Mwenge. Most of them entirely depend on carving activities to earn their income and sustain their livelihood. It was also discovered, however, that carving activities have direct contribution in the environmental destruction and have also been one of the causes of 'Mpingo' depletion. The study found out that the 'Mpingo' tree is the most preferred tree for carvings and rarely do carvers use other tree species for carving. Limited supply and availability of 'Mpingo' logs, difficulties in getting the logs in Mwenge carving market were also identified as among the indicators for the depletion of the 'Mpingo' tree.

The study revealed also that sustainability of the 'Mpingo' tree is threatened and in order to solve this problem the carving activities need to be closely monitored and controlled.

It is recommended that despite the measures in place to control harvesting of forest products in general, specific measures should be imposed to save 'Mpingo' from current high rate of depletion.

It is also recommended that entrepreneurship education, and financial support is also important for the carving industry in Tanzania for achieving economic benefits.

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DECLARATION

“ I, Makawa Newa Laurent, hereby declare that the thesis: **Small and Medium Enterprises (SMEs) and Sustainable Development: The Case of Makonde Wood Carvers in Mwenge, Dar-es- Salaam Tanzania** has not been submitted to any other universities than the university of Agder for any type of academic degree.”

ABBREVIATIONS

CIFOR - Center for International Forestry Research

CITES - Convention for International Trade in Endangered Species

GDP- Gross Domestic Product

GNP – Gross National Product

ILO- International Labor Organization

MCP - ‘Mpingo’ Conservation Project

NEMC - National Environmental Management Council

SADC - Southern Africa Development Community

SMEs - Small and Medium Enterprises

TRA- Tanzanian Revenue Authority

Tsh - Tanzanian Shilling

URT – United Republic of Tanzania

UNEP – United Nations Environmental Program

UNCED - United Nations Conference on Environment and Development

USD- USA Dollar

WCED- World Commission on Environment and Development,

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CHAPTER ONE

INTRODUCTION

1.0 Background to the Problem

Degradation of resources is likely to affect the lives of many people in Tanzania as most of the citizens depend on natural resources. “The country is endowed with significant natural resources, which include forests and woodlands, wild animals, rivers, lakes and wetlands. All these resources play a big role in the development of the economy in terms of provision of social and economic goods and services. The degradation of these resources will positively undermine the ecological sustainability of economic activity” (URT, 2008).

Among the beneficiaries of these endowed natural resources are the Makonde wood carvers. The Makonde wood carvers in Tanzania depend on Ebony tree which is called ‘Mpingo’ in Kiswahili, a local language, for making carvings which are traded within and outside Tanzania. This has been an income generating activity for quite a larger number of people Makonde and non - Makonde and has attracted many customers most being tourists from different parts of the world. In addition to that the industry has employed quite a large number of individuals thus reducing unemployment. As an income generating activity, the woodcarving industry is therefore the key player to the livelihood of Makonde artists and other Tanzanians engaging in the Makonde carvings.

‘Mpingo’ tree has social, economical and ecological benefits. The local population uses ‘Mpingo’ for subsistence needs, fuel, building, and ceremonial purposes. The roots of the tree are good for soil, it add some nutrients which are good for soil. Moreover the tree provides fodder and habitat for animals. There is a worry that overexploitation of the tree due to high commercial uses will cause the loss of this tree species in East Africa (Mmbaga, 1999).

‘Mpingo’ is highly used in Tanzania by Makonde wood carvers who are scattered in almost all regions of the country Due to “the pressures from local and international demand in the 1980s some were predicting that there could be no harvestable ‘Mpingo’ left in Tanzania by 2010” (Hall, 1988 in West& Malugu 2003:12).And it is estimated that in Tanzania at least 50 percent of trees are felled illegally without a license (Ball, 2008: 252).

Moreover, it has been reported that illegal trade of forest products is critical problem mostly because of some reasons as acute shortage of manpower for managing the forests and in some cases due to corrupt government workers (Dallu, nd, 15).

‘Mpingo’ has local, national and international value and importance but its conservation is neglected and there are neither efforts to monitor and conserve the uses nor large scale effort to replant the tree made by commercial users or conservationist. “Very little is even known about ‘Mpingo’; its range of distribution, its yearly use, its rate of extraction” (Mmbaga: 1999). It is

also difficult to estimate the amount of 'Mpingo' used for carving because "there is no such thing as a standard carving nor is it easy to determine the average size of carvings" (Jenkins et al, 2002: 10).

Gregory et al (1999:86) suggested that, the only way to assess the 'Mpingo' situation, for example understanding the current harvestable rate, is to conduct large scale inventory.

Depletion of natural resources has been a problem in many countries in the world including Tanzania. The increasing use and complete dependency on natural resources for development has been a reason for the depletion. That being the reason countries should be concerned with the conservation strategies and policies for the sake of addressing the loss of its natural resources. Therefore, complete dependence on these natural resources for development has made Tanzania become concerned with its depletion.

The world conservation strategy envisaged that governments in different parts of the world should review their own national conservation strategies to incorporate environment in development planning (UNEP, 2002; 9).

Environmental linkages into sectoral policies are important for attaining sustainable development. The Tanzanian SME sector designed the following strategies to its policy which is at least a good sign of commitment to mainstream environmental issues into SME sector. The strategies are:

Facilitate creation of awareness on environmental issues to SMEs and their service providers, facilitate simplification of environmental impact assessment procedures, encourage proper waste management including recycling techniques and facilitate production of technologies which apply renewable energy (URT, 2003:30)

However, the above strategies will work well if there will be good environment for policy implementation. Sutton (1999:23) stated that to manage implementation process the following are required; consensus building, participation of key stakeholders, conflict resolution, compromise, contingency planning, resource mobilization and adaptation.

All in all forests, woodlands and trees contribute significantly to the existence of a good environment. They harbor a diverse flora and fauna community, protect water sources, soil resources, and provide recreational, scenic and aesthetic values (Mbonde, 1994). People also depend on natural resource for their life, the balance of the two is important that the use of the resource and conservation.

It was suggested that in order to strike the balance between use and conservation focus should be on conservation rather than preservation (Gregory et al, 1999:88).

1.1 Tanzania information

Tanzania covering a total area of 945,000 km², of which mainland Tanzania covers 881,300 km² and Zanzibar 2000 km². Tanzania is the biggest of the East Africa countries of Kenya, Uganda and Tanzania. (URT, 2009)

The last national population census which was conducted in 2002 estimated a count of 34,443,603 people of which mainland had 33,461,849 people and Zanzibar 981,754. Dar-es-salaam region which is the largest and commercial city of Tanzania has the highest population density estimated 1793 people per sq. km) and Lindi region has the lowest density (12 per sq. km (URT, 2009).

The country comprises about 120 ethnic groups, most of which are very small. The Sukuma, Nyamwezi, Makonde, Haya and Chagga are the five largest ethnicities. However, there is no ethnic group which dominate either politically or culturally (Moore, 2004:8)".

Agriculture plays the key role in the development of the economy of Tanzania and the majority of the rural population is engaging in it. Agriculture activities dominating the economy of Tanzania contribute 50 percent of the Gross Domestic Product (GDP) and 80 percent of the employment (URT, 2009).

The sector comprises crop production, animal husbandry, forestry, fishery, and hunting sub sectors. Major exports include coffee, cotton, tea, tobacco, cashew nuts, and sisal (URT, 2009).

Forest in mainland Tanzania covers 35,257,000 ha, out of this forest cover the country lost about 130,000 hectares per year for the period of 1978-1980 (UNEP, 2002:5) due to deforestation caused by agriculture and other human activities induced by increased population.

Tanzania is still a very poor country; according to 2005 estimates the average per capita Gross National Product (GNP) was estimated around US dollars 246 and Per Capita GDP estimated at US dollars 251 (URT, 2009).

Figure one (1) below is a map of Tanzania.



Map 1: Map of Tanzania
 Source: Map obtained from United Nations (2005)

1.2 Statement of the Problem

Much research has been done in Tanzania on small and medium enterprises (SMEs). For example, research has been done on financing SMEs, improving working environment to SMEs, the problem they encounter in their activities and access to information and communication technology. But very few studies have been done on SMEs and sustainable development, despite the importance of environmental issues and having increasing number of SMEs in Tanzania.

“However, it is suggested that the fields of entrepreneurship and SME studies have lagged somewhat behind other disciplines when it comes to including sustainable development concepts in their contemporary research agenda” (Schaper, 2002:525).

Despite having a larger number of SMEs in a country compared to large-scale firms, most of the concerns on environment have been directed to large firms, presumably because they are the most visible and have the highest impact on the environment.

As wood carving activities are largely organized as Small and Medium Enterprises, they are also part of the neglect when it comes to concerns of the environmental protection for sustainable development.

Despite the increasing demand of wood carvings in Tanzania and outside Tanzania, which causes depletion of ‘Mpingo’, “the concerns on environment have been directed to other causes of environmental depletion like agriculture expansion, timber extraction and fire damage presumably because it is most visible and have the highest impact” (Mwandosya and Luhanga, 1996:3).

The study addressed the contribution of Makonde wood carving activities in the depletion of ‘Mpingo’ and the environment in general, its sustainability and contributions to Makonde livelihood as well as the current debate on their implication on conservation. That is “economic viability and ecological sustainability need to be balanced” (Chingombe & Pedzisai, (2006:20) The study therefore aimed at finding ways of striking a balance for sustainable use of the natural resources for environmental protection.

1.3 Research Questions

- What is the impact of Makonde wood carving activities to the economic welfare of the artists?
- Do the Makonde artists contribute to the depletion of ‘Mpingo’ tree and environment in general?
- Are the Makonde wood carving activities sustainable?

1.4 Rationale

This study intended to give resource users, policy makers and other stakeholders in SMEs sector an insight into contemporary issues pertaining to sustainable use of forest resources.

This study will also help SMEs and specifically Makonde artists to understand the environmental sustainability and its importance in general.

CHAPTER TWO

LITERATURE REVIEW

2.0 Theoretical Framework Overview

Small and medium enterprises have been overlooked in the studies of sustainable development. However large companies have been given much attention. *SMEs are overlooked due to a number of reasons. “Perhaps the first is that the impact of larger firms on the environment tends to be more noticeable. As a result, it is easier to see, measure, understand and evaluate the impact of such large firms. In addition, larger firms tend to have more experience in dealing with multiple stakeholder pressures, and have become adept at handling the need for a ‘greener’ business perspective. A second reason is the nature and structure of the SME sector. Most small firms are, by definition, relatively miniscule, as is their environmental impact (Schaper (2002:526-527))”.*

The small and medium enterprises in many countries are however the most important sector for employment creation and economic importance of a country hence it is important to evaluate their sustainability. In Tanzania for example, the SMEs sector plays major role in social economy development (URT, 2003:12).

Since SME sector is important to the economy then there is a need to put much attention and make sure that its contribution to the economy is sustainable.

Schaper (2002:525) pointed out that “it is suggested that there are four major areas in which a new agenda of sustainable development can be adopted within the fields of entrepreneurship and SME studies:

- o Evaluating and measuring the environmental impact of small firms;
- o Understanding the role of green entrepreneurs (‘ecopreneurs’) and the factors which promote or hinder their development;
- o The inclusion of environmental and sustainable development issues within the educational curriculum;
- o Developing a better understanding of how business advisory services and government policy can help or hinder the creation of “greener” businesses”.

The United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, of 1992 which its principle theme is environment and development and later world business council for sustainable development (WBCSD) which encourage business to look for improvement in profitability by reducing waste of both resources and energy and by reducing emissions are examples of international efforts wanting business to take into account their impact on environment hence attain sustainable development (UNEP,2002:20).

Hence for developing countries like Tanzania it is important to take into account the principles of the two (UNCED and WBCSD) in its moves for development.

2.1 Wood Carving

Wood carving in Tanzania is mainly done by Makonde people and they mainly use the 'Mpingo' tree to make carvings.

It is estimated that there are about 1,500 carvers in Tanzania, most using less than 1m³ timber each year. The highest concentration, including around 1,150 carvers, is in the Dar es Salaam area which includes Bagamoyo, Kisarawe and, significantly, Mwenge while other carvers are within the city centre (Moore and Hall 1987 in Bevan & Harrison, 2003:41).

The 'Mpingo' tree which is also called ebony is found in other African countries like Mozambique, Kenya, Ethiopia, Zambia, and Malawi (Ball, 1996). And despite of high rate of felling the trees which is taking place in these countries, there are very few studies which have been conducted on sustainability of wood carving industry in Africa and in Tanzania specifically. Ball, et al (1996:10) pointed out that, "despite its high exploitation by man, there has been little academic study of the 'Mpingo' species, and there are large gaps in current knowledge."

Among the few is a study conducted by Chingombe and Pedzisai (2006) whose objective was to determine the effects of the ecological sustainability of the craft industries along the Ngundu-Masvingo Highway in Zimbabwe. Study showed "*that craft industry is an essential rural livelihood strategy as it enables carvers to meet their basic economic needs and acquire some property. It also helps to reduce the impacts of drought and poverty. It is however, ineffective as an economic empowerment strategy and environmentally incompatible. Economic viability and ecological sustainability need to be balanced. Although carvers are aware of the environmental impacts, they showed also that they had no viable option.*" He recommends that "an educational campaign be launched at the national level to deal with this environmental degradation problem. This study is however differing with this study because it focused the rural people while this study focuses on the urban people."

Asiamah (2008) also wrote an article about sustainability of the wood carving industry. He stated that, the future of the wood carving industry in Ghana looked bleak as a result of unbridled deforestation. There is, however, apprehension over the sustainability of export levels because of the fast pace at which traditional tree species are being depleted in Ghana's forests. He said to arrest the situation, World Wide Fund for Nature - West Africa Regional Program Office is embarking on the alternative carving wood for sustainable livelihood project with funding from the French Embassy. The project is aimed at identifying and developing suitable and sustainable alternative carving wood sources by facilitating a shift from the use of the fast diminishing but preferred species to suitable fast growing species such as the 'neem' tree. It is expected that the project will lead to the sensitization of stakeholders in the carving industry about alternative wood sources and the benefits accruing from such options and subsequent adoption of farm forestry for 'neem' trees by land owners. In addition, the capacity of wood carvers

and marketers will be enhanced through training and demonstration of best practices; business plans for wood carving cooperative groups will be developed and implemented; and global market linkages will be pursued to enhance capacity to access the global wood market.

Okrah in 2002 also conducted a study in which he wanted to know if the growth of the woodcarving industry in Ghana contributed to deforestation and the decline of the species used for the carving. His study intended to establish links that exist between wood the carving industry and used tree species.

However those studies did not focus on the impact of the wood carving to the small enterprises but it rather focused on the impact of wood use in general.

2.2 History cultural background of Makonde people

Makonde are one of Tanzania's largest ethnic groups. *“Originally they came from Northern Mozambique where many still live”* (Sirs, 2005). Civil war and the low standard of living in Mozambique have lead to many thousands of them crossing into Tanzania over the last three decades (Gregory et al 1998:14).

In Tanzania they established themselves in Mtwara, Lindi and Masasi region. The Makonde are similar to the Maasai who have maintained their culture and customs and are commonly known for the carving activities using the ‘Mpingo’ tree.

“‘Mpingo’ carving has a long history. Originally ‘Mpingo’ masks were used in initiation rituals and ‘ngoma’ dance ceremonies, such as the ‘unyago’ initiation rites. These have declined with the arrival of world religions, and such instruction masks are now considered antiques” (Bevan & Harrison, in West and Malugu, 2003:13).

Mapico mask and chests masks the ritual objects were not for sale to the public (Saetersdal, 1998:293). Other sculptures like ‘ujamaa’ and ‘shetani’ style figure, was produced to “represent scenes from everyday village life” (Bevan & Harrison, in West and Malugu).

The Makonde are also known for their intricate carvings of drummers, hunters and dancers (Bevan & Harrison, in West and Malugu, 2003:13). *“The Makonde are famed for their carvings and are considered to be the best traditional artists throughout the African continent”* (Sirs, 2005).

Unlike many other tribes in Tanzania the Makonde are matrilineal. *“Although customs are gradually changing, children and inheritances normally belong to the woman and it’s common for husbands to move to the village of their wives after marriage”* (Sirs, 2005).

It was men who predominately were engaging in carving activities, and women were not allowed. Saetersdal (1998) writes *“masks that were to be used in ritual activities were produced in secrecy outside the village kept away from women and uninitiated boys, and a woman who caught a glimpse of such a mask put to death”*.

It is different now as women also involved in carving, even though they are few in number. The Bagamoyo Art Institute is now providing carving courses where both men and women are free to join. As of now there is a woman a Makonde carving at Mwenge. However, she obtained the skills of carving from the arts institute Bagamoyo Tanzania.

And this is not only for Makonde people but also other countries in Africa. It has been pointed out that in SADC countries “men are most often associated with carved or sculpted objects, whether in wood, stone or clay” (ILO, 2003:11). Today for example in Tanzania there are large number of women participating much in the trading of the Makonde carving and not carving. These women bought carvings from the male carvers and because they have enough capital they sale on shops others have large capital to sale abroad.

Most of the Makonde now are making carvings for business purposes. Gunninghan et al (2005:10) pointed that that currently in many communities’ tourism and globalization have encourages commercialization made the carving activities.

Despite the carving activities, Makonde are also moving into Dar-es-salaam city to work as watchmen’s and security guards. And currently Makonde youths have been moving into Dar- es-salaam to work as street vendors commonly known as ‘Machingas’. They all do this in search of the good life which they believe they will get in town other than staying in their villages.

2.3 ‘Mpingo’ under threat

The ‘Mpingo’ tree is an important tree because of its social and economic significance and its many varied uses.

However the ‘Mpingo’ has been “*reduced in number and consequently in volume due to excessive exploitation*” (Opulukwa, 2002:8).

The tree population has continued to decrease due to over-exploitation caused by human activities for example uncontrolled fires and extensive exportation of wood (Read, 1993 in & Opulukwa et al, 2002:2).

Places which are under heaviest harvesting pressure are those which are easily accessible, close to the major tourist markets for Makonde art and those near sawmills in Dar es Salaam, Lindi and Mtwara regions (Irene & Steve, 1994 in Opulukwa, 2002:2).

Ball, et al (1996:26) pointed out that in the past “Makonde carvers did not go far to obtain ‘Mpingo’ wood, but more recently have been forced to do so because more accessible stocks have been depleted. Example those working in Dar-es-salaam have to go to other regions, while before the ‘Mpingo’ was obtained within the region.

Dubai Blackwood Enterprise Sawmill is located in Nachingwea where it extracts and processes ‘Mpingo’ wood *for* export to the United Kingdom and Japan. Harvesting has been conducted in the district at least since 1945, with a large

increase in volumes extracted after 1980. The demand has increased but the problem was supply. Due to this factor, now it is very hard to find harvestable wood (Opulukwa et al 2002:2).

Furthermore, it has been reported that Chinese companies are conducting illegal importation of 'Mpingo' from Tanzania by not using proper channels. They have been logging without documentation, logging in unauthorized areas, and the use of invalid export documentation. "In one week in October 2007, officials with Tanzania's Ministry of Natural Resources and Tourism confiscated two shipments totaling 73 containers of logs" (Barclay,2007).

According to Okrah (2002:15) in Ghana 'Mpingo' was imported from Kenya, but the supplier is declining. And in Kenya the tree is also declining and now Kenya is imported from Tanzania, it has been reported that in "Kenya every year, 50,000 'Mpingo' trees are cut down" (Miller, 2000).

"It has been reported that Kenya's stocks have been over-harvested leading to commercial extinction, and Mozambique's civil war at one time largely prevented harvesting of 'Mpingo' there. Virtually all the billets of processed timber bought by developed countries currently come from Tanzania and Mozambique" (Gregory et al, 1999:1). It has also reported that the tree population in Kenya is now very low indeed, and some estimate that there will be no harvestable wood left in Tanzania in as little as twenty years time with potentially disastrous consequences for the local economy (UNEP 1988) & in Ball et al (1996:9).

Even though it is required by law to have a license in order to cut 'Mpingo' tree, the Illegal feeling has been reported as a serious problem. However, there are many reports that a substantial proportion of the 'Mpingo' harvesting in Tanzania takes place illegally (Ball et al 1996:37). It became clear that 'Mpingo' is threatened by adverse burning habits, illegal harvesting and deforestation.

For example Kibaha District Forest Officer reported that no licenses had been issued for 'Mpingo' in his district the year 1994/1995, "but that there was plenty of evidence of the extraction in both gazetted, private and common lands in the area" (Sharman, p. 23) in Stockbauer, 1999). Insufficient resources result to in the ineffective management of forest (Gregory et al, 1999:6) which leads to inability to enforce regulations, and increased illegal logging (Harrison, 2008:2).

2.4 Measures to conserve 'Mpingo' in Tanzania

Since 1960, 'Mpingo' has been considered as rare species in Tanzania (Opulukwa et al, 2002:2). "*The export of 'Mpingo' logs from Tanzania was banned in 1993 in order to conserve the species and increase its value through semi or full processing* (Moore & Hall, 1987 in Opulukwa et al (2002:2)".

Research has been conducted and recommendations towards sustainable use of 'Mpingo' have been made.

“Based on the importance of ‘Mpingo’ for the economy of Tanzania, it is recommended that a national inventory for the species should be carried out in order to know the existing stock and to prescribe sustainable harvesting regimes” (Opulukwa et al., 2002:1&9).

This source has also recommended that, traders given license to harvest ‘Mpingo’ should be supervised when entering the forests to harvest trees. *“The Licenses or permit system should incorporate an inspection process to reduce frauds. Penalties should be revised from time to time so that they exceed potential gain from committing offences”.*

Other stakeholders like The ‘Mpingo’ Conservation Project (MCP) a non- governmental organization was founded in 1995 with the aim of conserving the endangered forests by promoting sustainable and socially equitable harvesting of ‘Mpingo’ and other valuable timber stocks ‘Mpingo’ Conservation Project, (MCP) have been conducted a lot of studies about ‘Mpingo’ (MCP,2009).

It has also advised that the ‘Mpingo’ carvings should be replaced with other tree species that is alternative tree should be used to minimize the use. However the carvers do not like to replace the tree.

The choice of type of wood for a particular use is depending on several characteristics for example, hardness, shrinkage, strength, degrade in seasoning, resistance to attack by bores, termites or decay, permeability to preservatives and other liquids, ease of working, quality of finish, steam bending characterizes, gluing, properties and appearance(Bryce, 1967:12).

2.5 Concept of sustainable development

The Brundtland Report (World Commission on Environment and Development, 1987) defined sustainable development as development that seeks to meet the needs and aspirations of the present without compromising the ability of the future generations to meet their own needs.

Sustainable use of resources is the number one principle for achieving sustainable development, there is need then to put much emphasis on sustainable use of resources. However, the manner of our current resource use is not convincing enough as there are small chances for future generations to have access to the share of scarce resources. The obvious action therefore is for the world today to change the pattern for the better use of resources.

“The quest for sustainable development is the quest not only for the preservation of the environment, as was emphasized until recently, but for the simultaneous satisfaction of three objectives: environmental protection, economic efficiency, and social equity” (Atkinson et al., 1997; Castri, 1995; Commission of the European Communities, 1997; Pearce, 1988; Pearce, Barbier, & Markandya, 1990; Sadler & Jacobs, 1989 in Briassoulis,1999:213)

In this study the attention is therefore focused on the issue of environmental impacts, economic, and social benefits and political position on sustainability.

“The United Nations 2005 World Summit refers to the ‘interdependent and mutually reinforcing pillars’ of sustainable development as environmental protection, economic development and social development. The interdependency of the first two is evident; it is perhaps the greatest challenge of our time to satisfy the needs and wants of burgeoning populations within the binding constraints imposed by our physical environment. If environmental protection is concerned with the preservation of our natural environment and resources, and economic sustainability is concerned with seeking durable growth solutions therein, then the social-political sphere can be thought of as representative of the more purely human element in the equation. Social development and social-political sustainability are intimately related concepts but they are not in fact entirely interchangeable. It is important that we understand their symbiotic relationship and its implications for the broader sustainability project. Social development is a concept that is familiar to most of us in its many and varying forms. Within any given society there are opportunities to improve and enrich each of its composite parts in many ways. Of sometimes greater importance is the need to harmonize relations amongst these various and sometimes opposing elements. Those actively engaged in the process of social development include agents acting within its institutions to effect change via established channels. Of more notice, however, are often those who act from the outside, those who reject the society's institutions as inadequate, and who advocate wholesale social and political change as the only true path to social enrichment and development” (Kern, 2008).

To move towards sustainable development we need to integrate national and regional and international efforts. Here the issue of the international commitment to world's problems comes in. It's good that there are already international efforts in place which addressed the issues of sustainable development.

There has been various efforts by the world community to address the environmental problems; International commitment for environmental issues has been shown and evidenced in many international agreements, including, for example, the United Nations conference on the Human environment Stockholm, Sweden (1972) and the same year United Nations Environmental program (UNEP) established, United Nations Conference on Desertification Nairobi Kenya (1977), The Brundtland report publicizes the idea of sustainable development.(1987), United Nations Conference on Environment and Development, held at Rio de Janeiro(1992), the United Nations Convention to Combat Desertification (1994), Kyoto protocol(1997), Millennium Summit New York United States,(2000), World Summit on Sustainable development Johannesburg in 2002 (UNEP, 2002).

Population growth is a challenge to ensuring sustainable development. Sustainable development can be pursued more easily when population size is stabilized at a level consistent with the productive capacity of the ecosystem (Brundtland, 1987)

Moreover looking at the manner on which resource is used is important in achieving sustainable development. “Pressures on the resources increase when people lack alternatives. Development policies must therefore widen people's options for earning a sustainable livelihood, particularly for resource poor households and in areas under ecological stress.” (Brundtland, 1987)

2.6 Definition of Small and Medium Enterprises (SMEs)

The SMEs stands for Small and Medium Enterprises (URT, 2003:9). “A challenging issue one must deal with when writing about small and medium business – an issue that has not yet been settled in general accepted manner – is to define what small and medium business is and distinguish it from large business. There is little agreement about what is ‘small’ or ‘large’, for size is a relative concept. What is a ‘small’ in one industry in terms of sales or employment may be a “large” in another industry” (Nhat, 1996:11).

“There is no universally accepted definition of SME (URT, 2003:9)”. Up to now, the definitions of SMEs still is an argument in almost countries, because the criteria for classifying SMEs depends on different periods, level of development, economic structures and regions.) and in addition, definitions of SMEs change over time (Gaedeke and Tootelian, 1995 in Binh, 2001).

In the context of Tanzania, the SMEs are defined based on the size of the workforce and the amount of capital invested. Micro enterprises engage up to 4 people, in most cases comprising of family members or employing capital amounting up to Tshs.5.0 million. The majority under this group of micro enterprises fall under the informal sector. Small enterprises are mostly consist of formalized activities engaging between 5 and 49 employees or with capital investment from Tshs.5 million to Tshs.200 million. Medium enterprises employ between 50 and 99 people or use capital investment from Tshs.200 million to Tshs.800 million (URT, 2003: 9). Table 1(one) below shows categories of SMEs in Tanzania.

Category	Employee	Capital investment in Machinery (Tshs.)
Micro enterprise	1 – 4	Up to 5 mil.
Small enterprise	5 – 49	Above 5 mil. to 200 mil.
Medium enterprise	50 – 99	Above 200mil.to 800 mil.
Large enterprise	100 +	Above 800 mil.

Table1. Categories of SMEs in Tanzania

Source: United Republic of Tanzania, Ministry o Industry and Trade, SME Development Policy, 2003:9)

2.6.1 Importance of SME Sector

“Small and Medium enterprises (SMEs) all over the world are known to play a major role in socio-economic development. In Tanzania SMEs contribute significantly to employment creation, income generation and stimulation of growth in both urban and rural areas (URT, 2003:14)”. Many people engage themselves in SMEs sector after facing difficulties in getting employment in the formal sector because of the reasons of either not having the skills required in the informal sector or the retrenchments in public sectors caused by privation of state owned firms.

“Since SMEs tend to be labor-intensive, they create employment at relatively low levels of investment per job created. At present, unemployment is a significant problem that Tanzania had to deal with (URT, 2003:12).”

The 1991 informal sector survey reported that, micro enterprises operating in the informal sector alone consisted of more than 1.7 million businesses engaging about 3 million persons, that was, about 20% of the Tanzanian labor force (URT, 2003:12).

“And In 1993, it was estimated that about 12% of the rural labor force was self-employed in the SME sector, while in urban areas it was estimated to be 34% (Kirumba, 2000).”

“Job opportunities in the formal sector being limited, the informal economy is absorbing more and more job seekers and acting as a social safety valve by preventing large sections of the population from sinking into poverty “(ILO, 2002).

SMEs facilitate distribution of economic activities within the economy and thus foster equitable income distribution. Furthermore, SME technologies are easier to acquire, transfer and adopt. Also, SMEs are better positioned to satisfy limited demands brought about by small and localized markets due to their lower overheads and fixed costs. Moreover, SME owners tend to show greater resilience in the face of recessions by holding on to their businesses, as they are prepared to temporarily accept lower compensation. Through business linkages, partnerships and subcontracting relationships, SMEs have great potential to complement large industries requirements. A strong and productive industrial structure can only be achieved where SMEs and large enterprises not only coexist but also function in a symbiotic relationship. In addition, SMEs serve as a training ground for entrepreneurship and managerial development and enable motivated individuals to find new avenues for investment and expanding their operations (Olomi, 2006:1).

SMEs are facing with problems and because of its importance to people livelihood and Tanzania economy in general solving their problems is important.

The problems of SME sector as stipulated in SMEs 2003 policy include;

- “Heavy costs of compliance resulting from their size.

- Other constraints include insufficient working premises and limited access to finance.
- In addition, Business Development Services, namely services related to entrepreneurship, business training, marketing, technology development and information are underdeveloped and not readily available.
- On the other hand, SME operators lack information as well as appreciation for such services and can hardly afford to pay for the services. As a result, operators of the sector have rather low skills.
- Also, there is no umbrella association for SMEs. At the same time, the institutions and associations supporting SMEs are weak, fragmented and uncoordinated partly due to lack of clear guidance and policy for the development of the sector.”

2.6.2 Small and Medium Enterprises (SMEs) and sustainable development

Sustainable development is a good thing and that all businesses, large and small, should be actively involved in. Therefore SMEs can get involved in sustainable development by adopting environmentally sound business principles.

“An environmentally responsible firm can be defined as one which seeks to limit or prevent damage to, or to consciously improve, the existing natural environment.” (Murphy et al, 1995: 5) in Schaper (nd: 525) claims that the concept can be defined as “the practice of responding to environmental issues in a socially responsible manner,” whilst Longenecker, et al (1997: 558) in Schaper (nd: 525) argue that it is ‘the effort to protect and preserve the environment (Schaper, nd: 525)”

SMEs have considerable environmental impact. With challenges which they are confronted, and the perception that their individual impact is not significant, it is unlikely that environmental concerns will figure high on their business agendas. By engaging with SMEs, assisting them with capacity building, and aiding them with compliance, particularly with environmental standards, large corporations can help SMEs integrate sustainable development thinking into their production processes and operations” (WBCSD, 2004:6).

2.6.3 Small and Medium Enterprises (SMEs) activities and impact on the environment

“The impact of business on the environment has become an issue of increasing concern since the late 1980s, particularly in western economies (Gerrans and Hutchinson, 2000; Robbins, 2001 in Gadenne,et all,2008:1).With increasing awareness of environmental issues, there has been rising demand for environmental- friendly business practices (Gadenne et al.,2008:1)”.

Small and medium enterprises (SMEs) consist of up to more than 90 percent of businesses worldwide and account for between 50 and 60 percent of employment (Vives, 2005).

Some activities of SMEs caused destruction on environment. Tilley (1999) pointed out that, a majority of the small firms, particularly those in the business services sector, did not perceive their businesses to have any environmental problems, either because the impacts were perceived as too small or non-existent. In fact, many small business owners believe that they have little impact on the environment (Lee, 2000; Rowe and Hollingsworth, 1996). It however argued that their total impact is high (Gadenne, 2008).

Even though the individual impact of SMEs to environment is small the collective impact is large (Schaper, 2002:527).

Therefore, “the impact of SMEs on the natural environment, and the ways in which they can contribute to sustainable development in the future, do need to be examined in more detail (Spence, Rutherford, Blackburn 1998) in Schaper, (2002:527)”.

Although usually not given a great deal of attention, the role of small firms and the entrepreneurs who operate them are the key part of the sustainability debate.

2.6.4 SMEs and Environmental Awareness and Initiative to ‘Mpingo’

“The concepts of CSR and sustainable development are still poorly understood, and companies do not know how to translate them into their day-to-day business. The majority of SMEs simply cannot be expected to take an active interest in environmental and CSR issues unless it is mandatory (Studer et al, 2008).”

“However, awareness of formal environmental management systems, specific environmental laws and / or remediation processes is generally very poor and quite limited” (Schaper, nd: 527).

In Tanzania in general the community attitude towards conserving ‘Mpingo’ was not very enthusiastic, and little initiative was taken place (‘Mpingo’ conservation project, 1999).

Some countries have taken efforts to raising awareness for the sustainable use of the declining specific tree species in the wood carving industry. For example, In Kenya, 'People and Plants Initiative' advocating for the nursery raised fast growing light in weight and durable 'good woods' from alternative sustainable exotic species such as jacaranda, mango or silver oak has been promoted, (Cunningham, 1998 and Chonga, 1999). As a result 'Smart wood' by forest Stewardship Council with carvers, governmental organisations, non-governmental organisations and donor agencies stakeholders' active in tree production and management, wood utilisation and marketing was initiated.

National awareness campaigns have been done through films, drama, fliers, and posters, public debate, and exhibition and training sessions for target groups. A 'good wood label' certifies the promoted crafts. In Zimbabwe, the National Tree Planting Day has been settled, with awareness campaign held on the first Saturday of December annually to encourage the planting of both indigenous and exotic trees. The Government of Zimbabwe has also set up the Forestry Commission mandated by the provisions of the Forestry Act of 1949 to be responsible for woodlands by controlling deforestation (Chingombe & Pedzisai, 2006:24)

In addition to that the plantation and diversification of the tree species seems to hold the key to over turn the fortunes of the wood industry. Since the continuous species-specific harvesting not only will see the extinction of those species but also will affect the industry, diversity of the forest and other species that depend on these used tree species (Okrah, 2002:9)

Those who regard environmental management as an ethical issue (or want to be perceived as such) might also support environmental activist groups (Gadenne, 2008). For example, the 'Mpingo' conservation project in Tanzania is involved in awareness rising for the purpose of conservation of the tree. The 'Mpingo' conservation project raises awareness locally, nationally and internationally. At local level they are working with villagers to increase awareness of forest conservation in general and the uses of 'Mpingo' in particular. For example the price currently paid by loggers to extract 'Mpingo' and other valuable timber species from village lands is often a fraction of its true worth. They are educating villagers about its real value so that they can demand an appropriate price from the loggers. They are also working along side local forestry officers to increase awareness of the various benefits to local people of a healthy forest, and what they can do to help maintain it. At national level the project is telling people in the country about the significance of 'Mpingo' to the country. They make them aware of the plight of the tree, and thereby encourage responsible buying. In addition, by encouraging and strengthening national interest in the tree, they can reinforce government concern, and keep the issues of 'Mpingo' conservation in the forefront when policy is being developed and implemented.

Moreover the conservation efforts had been also taken by international institutions is essential and will help to conserve 'Mpingo', conference organized by Fauna & Flora International 1995 Maputo. The conference insisted on collecting more qualitative and quantitative data on 'Mpingo' species because the currently available data is not sufficient (FFI, 1995) in (Ball, 1996:10).

As mentioned early very few initiatives have been taken to conserve 'Mpingo', however many of the conservation initiatives taken in Tanzania have been concerned preserving the forest in general and not 'Mpingo' in particular. For example the current participatory Forest management which enables communities across Tanzania to own, manage or co-manage forests under a wide range of conditions. This approach also has problems as (Blomley & Ramadhani, nd:4) stated "despite, of communities to own and manage land there is a still a problem of utilizing forests in a sustainable way and they mention many factors among them is limited knowledge about sustainable harvesting levels. Hence knowledge about sustainable development has been mentioned as crucial to attain sustainability."

2.7 The benefit of the wood carving industry

The economic benefit of wood carving is now widely recognized in many developing countries which “before was seen as a means to express people’s thoughts, beliefs and way of life through symbols designed to communicate specific messages”. (Okrah, 2002:6).

One cubic metre of billets of Tanzania ‘Mpingo’ can fetch up to \$18,000 on the export market, making it one of the most valuable timbers in the world (Harrison, 2008:7). In Tanzania some of the intricate Makonde carvings are sold at an initial price of \$1,000. The wood for the instrument industry generates \$1.5 million a year. Backwoods in general are the third highest forest exchange earner in Tanzanian forestry (African Blackwood Conservation Project Online in Saoshiro, nd). Therefore the Makonde and the country in general are benefited from the sale of the carvings.

The total sale of the wood carving products in Ghana has been increasing. “From the mere USD 60,000.00 sale of handicraft in 1989, to more than USD 3,000,000 by 1996 (Okrah, 2002:6).

Woodcarving provides significant household income for about 300 000 dependants in Kenya, and in South Africa and Central Valley area of Oaxaca, Mexico it contributes around USD 500-2000 and USD 2500 per year respectively (CIFOR, 2002) in (Okrah, 2002:7-8)

In Zimbabwe the study conducted by (Chingombe & Pedzisai, 2006: 20) showed that the Craft Industry is an essential rural livelihood strategy as it enables carvers to meet their basic economic needs and acquire some property.

Although Gunningham (nd:10) also pointed out that Bali in contrast to Zimbabwe (which has been able to acquire few benefits to the carving industry) Bali have been more successfully profitable and at the same time environmentally sustainable by having highly skilled and well-organized woodcarvers, enlightened entrepreneurs who are willing to seek out export markets, and supportive government policies. Additionally, Tanzania in contrast to Kenya has not been much successful in carvings business, while most of the designs are copied from Tanzania

It has been reported that Kenyans travel into the region and purchase large quantities of Makonde carving. These sculptures and functional objects (ashtrays, spoons, bowls) are then given a high-polish finish and are sold as Kenyan in markets in the region and to foreign tourists (ILO, 2003:27).

Moreover (ILO, 2003:1) pointed out that the craft sector in SADC region has the potential to develop and disproved the theory that the craft sector provides limited revenues, or is even a drain on the economy. Revenue from crafts can constitute a significant percentage of the GDP for the region.

The volume of ‘Mpingo’ exports – both timber and carvings – rose dramatically in 1996-97 (Bevan & Harrison, 1999:40-41). Figure number 1 and number 2 below shows the growing trend.

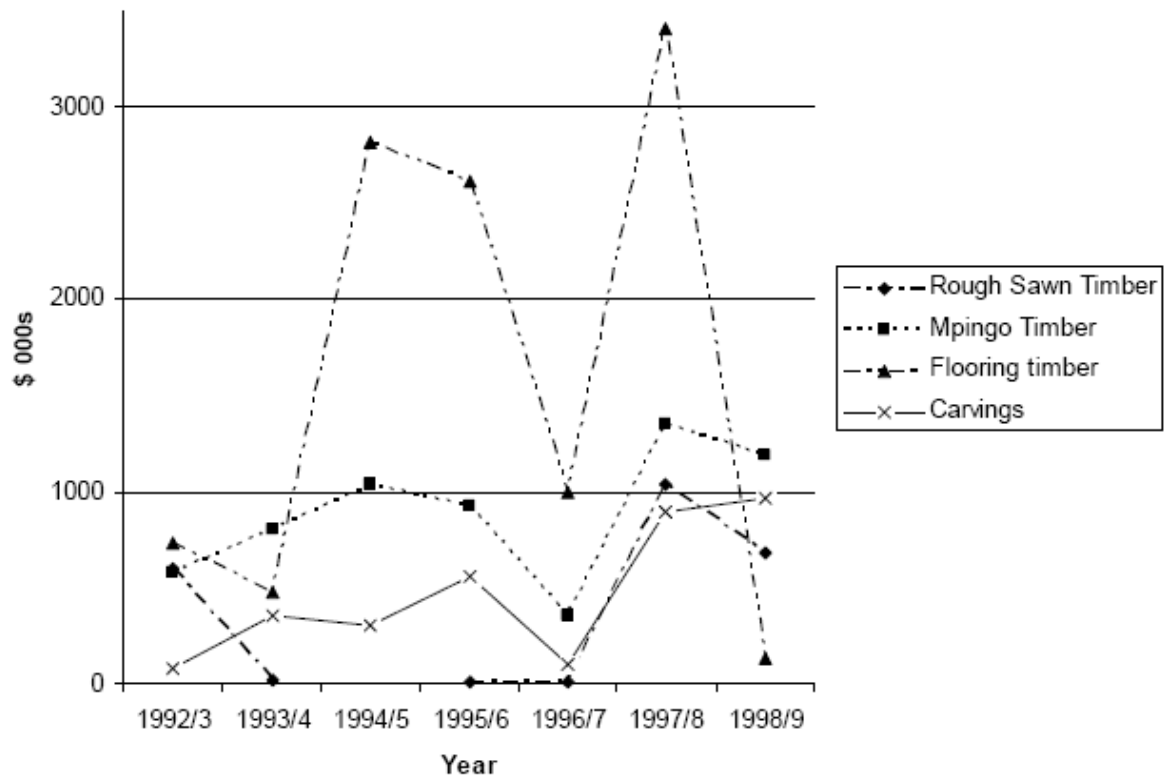


Figure 1: Comparisons of export values for different forms in USD 000s
 Source: Figure obtain from Bevan & Harrison (2003:41)

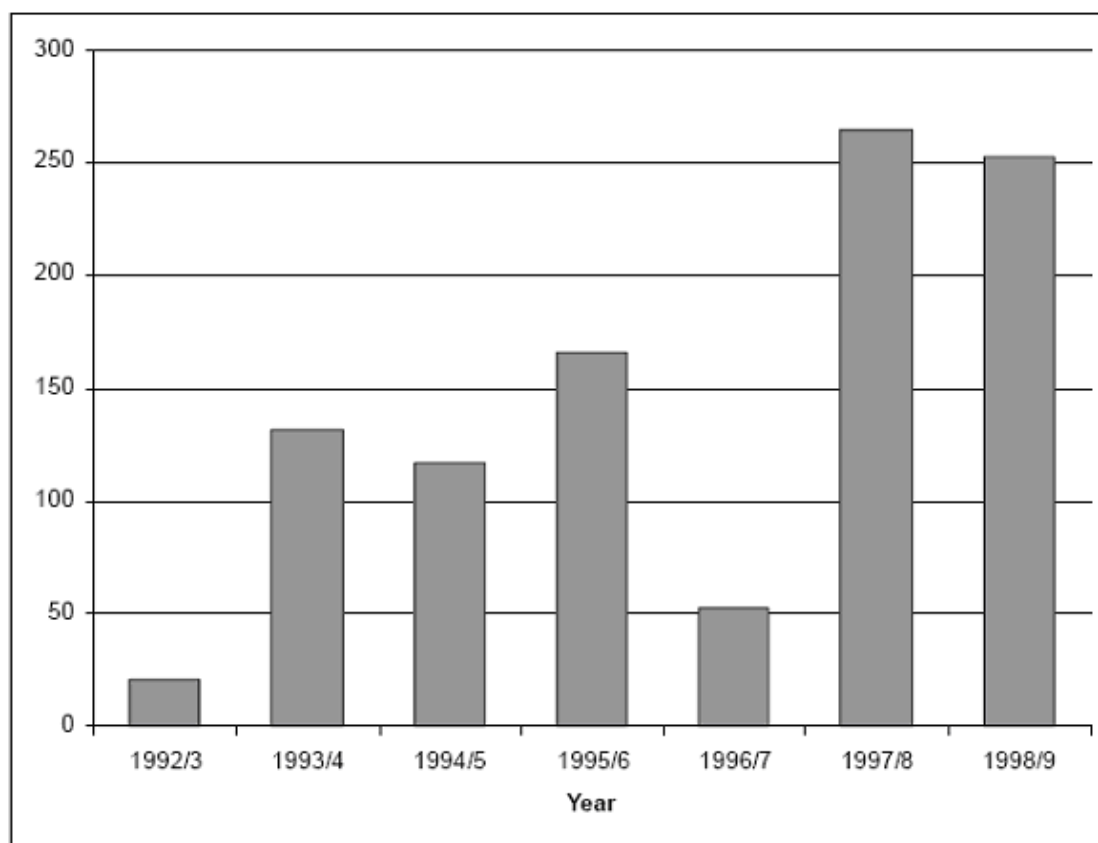


Figure 2: Carving exports, quantity by pieces sold
 Source: Figure obtain from Bevan & Harrison (2003:41)

In spite of the benefits obtained, cultural industries in the SADC region are often unable to capitalize on its popularity abroad due to lack of resources, effective networks and agency to affect alternative strategies to the usual delivery systems. To achieve good representation of crafts for international markets, marketing and design of products needs to be considered. Online presence that represents these sectors fairly and accurately is Necessary (ILO, 2003:6)

2. 8 Use versus conservation

Despite of having economic and social benefits, the over harvesting of ‘Mpingo’ for carving and other activities causes threats to environment. “Deforestation is already impacting water resources and causing soil erosion. It’s also spurring fire outbreaks and decreasing biodiversity in many parts of the country”, For example “Tanzania’s southern coastal forests, among the top ten global biodiversity ‘hotspots,’ are seriously threatened by habitat loss and species extinction. Forest inventories conducted by the Tanzanian government in 2005 showed that most southern forests ‘are degraded’ or ‘heavily degraded,’ and that 224, 865 to 242, 163 acres (91,000 to 98,000 hectares) are lost annually”(Barclay,2007).

Hence the use of natural resources should be balanced with its conservation. There is a challenge. Conservation has contributed to human well-being by maintaining ecosystems but it has also contributed to local poverty by denying the poor people control over and access to the natural resources that underpin their livelihoods (Fisher, 2005) in (Luan,2006:18). “When conservationists tried to regulate the ebony trade at a recent conference of the Convention for International Trade in Endangered Species of Fauna and Flora (CITES), delegates from Tanzania and Mozambique vehemently protested. Any attempt to curb the ebony market, they argued, would result in the loss of huge profits for their beleaguered economies. Quentin Luke in Miller (2000) identifies the employment issue as the major challenge to conservationists”. Hardwoods like ‘Mpingo’ must be protected; on the other hand, carvers should be able to make a living with their skilled trade.

“‘Mpingo’ is however ideally suited to be conserved through sustainable exploitation, rather than be preserved, by preventing it from being used.”(Gregory et al,1998:83).

For example, Gunninghan (nd:10) pointed out that in Bali wood carving industry have been successfully profitable and at the same time environmentally sustainable by having highly skilled and well-organized woodcarvers, enlightened entrepreneurs who are willing to seek out export markets, and supportive government policies.

“Despite of attempt to conserve ‘Mpingo’ there are several constraints which have been reported to prevent it from the loss. Plantations involves high, uncertain returns, and the time which ‘Mpingo’ take to mature that is 70- 100 years, 50% of trees are felled illegally, insufficient resources to enforce existing regulations, Intentional fires which prevent regeneration and facilitate heart-rot in adult trees and unwillingness of villagers to report illegal logging because of the government regulation that land is the exclusive property of the government (Ball, nd: 252).”

“Due to lack of funds, there is no large-scale inventory carried out for *D. melanoxylon* in Tanzania. Therefore, the exact stock in the country is not known. Based on the importance of ‘Mpingo’ for the economy of Tanzania, it is recommended that national inventory for the species should be carried out in order to know the existing stock and to prescribe sustainable harvesting regimes” (Opulukwa et al, 2002:1&2).

Other stakeholders like ‘Mpingo’ Conservation Project (MCP) a non- governmental organization has been founded in 1995 with the aiming to conserve the endangered forests by promoting sustainable and socially equitable harvesting of ‘Mpingo’ and other valuable timber stocks (‘Mpingo’ conservation project,2009).

Opulukwa et al (2002:9) also recommended that, traders given license to harvest ‘Mpingo’ should be supervised when entering the forests to harvest trees. License or permit system should incorporate an inspection process to reduce frauds. Penalties should be revised from time to time so that they exceed potential gain from committing offences.

Moreover inventory of ‘Mpingo’ has been insisted by many authors as important thing for example Jenkins, et al (2002:5) said “that it is not possible to be confident about sustainability of ‘Mpingo’ without doing extensive inventory and measurement of annual increment of harvestable timber.”

It has also advised that the ‘Mpingo’ carvings should be replaced with other tree species, and the alternative tree should be used to minimize the use. However the carvers do not like to replace the tree.

The choice of type of wood for a particular use is depending on several characteristics for example, hardness, shrinkage, strength, degrade in seasoning, resistance to attack by bores, termites or decay, permeability to preservatives and other liquids, ease of working, quality of finish, steam bending characteristics, gluing, properties and appearance(Bryce, 1967:12).

The following recommendations have been written down by Gregory et al (1998:6) during their study at Kilwa on the southern of Tanzania in order to achieve the sustainable harvesting of ‘Mpingo’.

- “An inventory of Tanzania’s ‘Mpingo’ stocks is urgently needed.
- Sawmills and carvers need to make more efficient use of harvested trees by integrating their activities.
- Steps need to be taken immediately to encourage early burning of miombo woodland.
- The use of Miombo by villagers should be considered in decision-making.
- ‘Mpingo’ in Lindi region should be protected from illegal logging and woodland clearance which will result from improved road links with Dar Es Salaam.
- Conservationists, sawmills and government foresters must work together to formulate and implement a management plan for ‘Mpingo’.

2.9 Forest Sector in Tanzania

In Tanzania forests and woodlands is estimated to cover an area of 33.5 hectares which is almost forty percent of the total land (URT, 2009). Other land use comprises of smallholder cultivation which is about 4.1 percent, large-scale agriculture is 0.6 percent, grazing land is 46.9 per cent, urban development land is 1.7 per cent, and inland waters 6.3 per cent (Dallu, 2002).

Forests in Tanzania comprises of private and community forests, government forest reserves, and forests and general land (URT, 2004).

These forests and wood land provides social, economical and environmental benefits to the country. Its contribution to Gross Domestic Product (GDP) is 2.3 percent and 10 percent of the registered exports. However, the above contribution is underestimated because there are unregistered consumption of wood fuels, bee products, catchments and environmental values and other forest products (URT, 2009). The table below shows estimated gross output in the forest based activities 1998- 2008.

Activity	1988		2008	
	Tshs million	% of grand total	Tshs in 1988 price	% of grand total
Fuel wood and charcoal	9500	34.5	12500	7.0
Building poles	1000	3.7	2200	1.2
Forest industries	3200	11.5	80300	45.3
Wood Total	13700	49.7	95000	53.5
Honey and beeswax	1100	3.8	2240	1.3
Wildlife based activities:	9700	35.2	74300	41.9
Others (Wattle extract, fruits, fodder, medicinal plants)	3100	11.3	5760	3.3
Non Wood Total	13900	50.3	82300	46.5
Grand Total:	27600	100.0	177000	100.0

Table 2: Estimated gross of output in forest based activities 1988 - 2008

Source: Forestry and Beekeeping Division (1989a) Tanzania, Forestry Action Plan 1990/91 - 2007/8 Ministry of Lands, Natural Resources and Tourism, Dar es Salaam First Draft, 89 pp. in Chihongo (1992) and Mgeni (1990).

Moreover, people are benefited much when these forests treated as a renewable resource, protected them to preserve biodiversity or transformed them to support other economic activities on sustainable basis (Chihongo, 1992)".

At subsistence level, people living near the forests get firewood, timber, building materials, fruits, medicine, honey, beeswax, fodder and various other related products. Below is a table showing a list of forests products and services.

Forest Resources Products and services	
Food	Shelter
Fodder	Employment
Medicinal plants	Ecotourism
Fuel	Habitat for wild life
Carbon sinks	Landscape diversity
	Prevention of land slides and soil erosion

Table 3: A list of forests products

Source: URT (2004) Natural Forest Program

Moreover forest and woodland protects and provide good environment by checking soil erosion and water run off, stabilizing soil surfaces, shelter-belts and windbreaks to protect fields,

enhancing soil fertility and rehabilitation of wastelands and industrial sites, ensuring environmental stability and productivity by mitigating the effects of climatic fluctuations, by improving the micro-climate for animal and plant production and by conserving soil and water resources, protect water quality by reducing silt and soluble minerals within the catchment soils, provide recreational and scenic (Chihongo,1992 & Mbonde,1994).

Despite of its importance there are a number of problems which affecting the forest sector in Tanzania. The problems are “deforestation, inadequate forestry extension services, inefficiency wood based industries and poor infrastructural facilities. Others are outdated legislation, fragmented administration at all levels between the centre and the local levels, lack of participation of various stakeholders in the management of the resources and poor resource databases, outdated and non existence of management plans for efficient resource use” (Tanzanian national website,2009)

The main causes of deforestation are increased population, human activities like forest fires, and agricultural activities, overgrazing, charcoal production, and over exploitation of wood resource. “The increase in population is considered in some areas has a major impact on forest and woodland resources, particularly in terms of fuel for household use. Generally woodlands near densely populated and accessible areas are subjected to over-exploitation, while large areas of woodlands in remote areas are still untapped (Dallu, 2002)”.

It is stated that for the better implementation of forestry based industries and sustainable “Livelihoods program in artisan and wood -based industry and products research on lesser-known and lesser-used tree types will be encouraged and new tree types that are good for wood-carving will be identified, promoted, and made available. Information on the supply and demand of wood-carvings in domestic and foreign markets will be made available so that marketing efforts can be improved. Current technologies for carving wood will be studied. Training on better methods and technologies for carving wood will be provided” (URT, 2004).

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This section presents the area of study, sampling that sample size and sampling techniques, research design, research strategy, data collection methods, data analysis methods and limitation of the study.

3.1 Area of study

This study was conducted at Mwenge, Dar-es-salaam Tanzania, and not Mtwara or Masasi which is the place of origin for Makonde people (Makonde people are famous for carvings of human figures as explained in the literature review). Mwenge is one of the largest centre where trading and carving activities are conducted.

The existence of many carvings groups with the interests of carving for economic gain and the demand for 'Mpingo' to sustain the market provided an opportunity to choose Mwenge as an area of study. And as Saetersdal (1998:303) stated in , "in Dar-es-salaam there are far more carvers than in any other place in Tanzania. The market is also larger, with a considerable degree of direct contact between foreign customers and carvers, like carvers market at Mwenge".

Many of Makonde carvers are also attracted to conduct their activities in Dar es Salaam as the region is better placed economically and provide opportunities and market for their products. Dar es Salaam is also the largest city in Tanzania and the entry and exist point for most of the tourist coming to Tanzania and neighboring countries.

Dar-es-salaam is also a business city of Tanzania with large numbers of population from different ethnicities and regions of Tanzania especially from rural areas. Many people in the Country migrate from rural areas to Dar es Salaam to look for jobs. Originally Dar es Salaam was the home town of 'Zaramo' people.

Dar es Salaam population is estimated at 2,497,940 inhabitants which is 1793 people per sq. km (URT, 2009). This fact among other reasons makes it difficult for the economy to absorb all the available labor force to work in the formal sector and therefore the majority of population in Dar es salaam has to engage in the informal sector. Most of the carving activities are also categorized in the informal sector in Tanzania.

The area of study was convenient for data collection as the researcher resides in Dar-es-salaam. All in all the purpose of site selection was to select the most carving market (area) that would provide answers to the research questions.

3.2 Sampling

The study population included: Makonde artists, Makonde carvings traders, 'Mpingo' wood suppliers, officials in the Ministry of Environment and Ministry of Industry and Trade, NEMC and Ministry of Natural Resource and Tourism.

The researcher used purposive stratified and random sampling methods to select the sample for the study.

The study used simple random sampling design. The basic idea is that each Makonde artist, supplier of 'Mpingo' wood (logs) had an equal chance of being included in the sample.

Purposive sampling was used because the sample wanted was already known. The purposive-stratified sampling method was used to get samples of the officials in the Ministry of Industry and Trade, National Environmental Management Council (NEMC), Ministry of Natural Resources and Tourism because they are dealing with SMEs, forests, and environment respectively.

In total, 75 respondents participated in the study. 50 Makonde artists, 5 'Mpingo' suppliers, 10 Makonde carvings traders, 4 officials from Ministry of Natural Resources and Tourism 2 officials from Ministry of Industry and Trade, 2 officials from Ministry of Environment and 2 official from NEMC

3.3 Research Design

Research design has been defined by Kothari (1997:54) as a plan of action through which a researcher organizes his /her work from data collection, organization to analysis.

This study used the case study design. And the Makonde wood carving was the case. The aim was to have the detailed and intensive analysis of the case as pointed out in (Bryman, 2004:49).

3.4 Research Strategy

The qualitative research strategy was used to this study. Qualitative research design embodies a view of social reality as an external objective reality (Bryman, 2004:19).The nature of the study problem requires much of listening and observation hence qualitative research was appropriate to this study.

3.5 Data Collection Methods

Both primary and secondary collected for this study. The techniques for data collection method which are applicable to the qualitative research process were therefore used.

Primary data techniques used include:

3.5.1 Interview

In-depth interviews were administered to the Makonde artists. The interviews intended to establish whether the business adds any economical benefit to the artists, whether the business is sustainable and whether the same contributes to the depletion of 'Mpingo' tree.

In-depth interview with officials in the Ministry of Environment and Ministry of Trade and Industry, Ministry of Natural Resource and Tourism and NEMC were also conducted. And their views on the role of the Ministries in controlling carving activities, sustainability of the carving activities, and economic importance of the carving industry importance were obtained.

The pattern of these interviews was unstructured type of interviews. An interview guide was prepared for the semi-structured interview. The interview process was flexible and emphasized on how the interviewee frames and understands issues and events as stated in Bryman (2004: 321). Before conducting interviews, participants were introduced to the objectives and expected benefits so as to enable them participate fully by listening and responding to questions and also raising other issues which are relevant to the study.

3.5.2 Self Completion Questionnaires

Questionnaires were designed for officials in the Ministry of Environment and Ministry of Trade and Industry. They generally comprise questions concerning the state of ebony trade at this time of high demand for the carvings and contribution of SMEs to the economy and reported cases.

Questionnaires were also be prepared and administered to some of the Makonde artists. These questionnaires were in local language ('kiswahili') as many of the Makonde artists were not conversant with English language. Questionnaires to Makonde artists aimed at getting in depth information on the impact of their activities to the environment, economy and sustainability of carving activities and environmental protection. Questionnaires were administered as alternatives to interviews and specifically to the sample that was not interviewed.

Additional primary data was also collected through informal discussions with Makonde artists.

3.5.3 Focus Group Discussion

The focus group discussion was conducted because this method of data collection enables to see how people respond to each others view and build up views out of the interactions that take place within the group (Bryman, 2004:346). The method is created for the purpose of getting diversity in perspectives.

Only two groups was organized one group comprise of five Makonde artists and the other group comprise of four traders. The small number of people in group was chosen for control purposes as large groups would not be easily managed. It was difficult to get more than two groups discussion because the environment at the field was not suitable for discussion and it was not possible for the respondents to leave the area for the discussion.

With the focus group the assessment of the impact of Makonde artists on the depletion of 'Mpingo' and on environment in general was discussed.

3.5.4 Observation

Direct observation was also used to this study as a source of obtaining information. The activities of Makonde carvers were also observed during the study.

This enabled getting personal experience and the depth of knowledge on Makonde activities and its impact to sustainable development. The method was also useful as the field of study was still largely unexplored.

Secondary data include:

Official statistics and publications from

- Ministry of Natural Resource and Tourism
- Environmental projects in Tanzania and SMEs policy
- Newspapers, magazines, journals and books
- Case studies and speech reports
- Web based data

Secondary data enabled to a great extent to save cost and time during the research study and demonstrated what has been written on the topic.

3.6 Data analysis methods

The study used qualitative methods to analyze the collected data.

The results are presented by tables and figures. The researcher combined the information from all sources of information that is interview, group discussions, observation and secondary sources.

Moreover, the study integrated the evidence in the study site with the lessons from other studies relating to carving activities, its impacts to people, environment and its sustainability

3.7 Limitation

This study is an attempt to analyze the impact of SMEs to sustainable development. The study specifically focuses on the Makonde carvers and therefore the data obtained here is limited to Makonde and thus they cannot be generalized to other SMEs. Future studies on other SMEs will therefore greatly enhance the understanding of the impact of SMEs on sustainable development in Tanzania.

CHAPTER FOUR

FINDINGS AND ANALYSIS

4.0 Introduction

This chapter presents an overview of the study findings. It also analyses the findings in accordance with the research questions stipulated in chapter one.

4.1 Characteristics of the Mwenge Carvers Market

History

The plot at Mwenge was allocated to carvers by the Tanzanian Government for a period of 99 years starting in 1984. Carvers were granted this land on the condition that they set up a co-operative. In 1987 the Carvers Association was formed and a Chairman elected. There are no written records of this history, and it is subject to the influences of oral pass-down.

The site was offered as a fillip to those forcibly ejected from the Oyster Bay area to create space for road construction. However, the good transport links and buoyant prices together with the considerable size of the plot encouraged the voluntary relocation of carvers from many small outlets in the Dar es Salaam area. Resellers and other merchants (not carvers themselves) have subsequently moved to the Mwenge area to set up shops/stalls.

Government Regulations and Definitions

Community

The community at Mwenge is registered and recognized by the Government under the name CHASAWATA, hereafter the Carvers Association. Traders can be subdivided into two separate groups: Mwenge Handicrafts Village and Mwenge Arts. Mwenge Handicrafts Village is the name given to 36 carving co-operatives; Mwenge Arts comprises merchants exploiting business opportunities.

Carving Groups

Carvers are legally required to be members of groups. Individuals are licensed to carve when their group is associated with a shop/stall that has registered, for a fee, with Mwenge Carvers Association, while stallholders must obtain government licenses for their businesses. There are currently 36 groups officially registered with the Carvers Association.

The Carvers Association

Financing

The Carvers Association is an umbrella organization, headed by a Chairman, Vice-Chairman and Secretary. Each group of carvers pays the Association a membership fee of TSh 10,000/- per annum, and the Association pays the government land levy on their behalf. Strictly speaking only the paying representative of each carving group are members, but in reality the association represents all the carvers at Mwenge.

Functions

The association has 4 primary functions:

- Protecting the rights of the carver; by co-coordinating and lobbying (for lower taxes for example), thereby ensuring that carvers have a voice.
- Arbitrating in disputes between carvers and traders; carvers need to sell their carvings immediately to support their families and may accept a low price for their work, as the time and effort spent is a sunk cost. The Association does not, however, set prices for carvings.
- Marketing carvers' work by searching out new markets.

Ensuring carvers maintain standards, though this is also modulated by demand.

Organization of Carving Groups

Size

The average group size (of the 36 groups in the Mwenge Carvers Association) was 17.4 members, but there were in fact three distinct clusters. Seven groups had 10 people or less, three groups were in the range 21-23, and two groups were very large (35 and 42 members).

Criteria under which new members are admitted

Twenty nine per cent (29%) of carving groups require new members to pay an up front fee. This is used for maintenance and also helps in preventing individual carvers from joining when the inspectors visit the market (so as to prove that they are members of the group). One group (#24) specified that new members must make a contribution of 15 pieces to stocks and another (#73) required family membership

Internal Structure

There is division of labor within a group based on the principle of task-specific specialization; members are categorized as carvers, finishers (polishers) and traders and have associated responsibilities.

Each group has a leader who is primarily responsible for delegating these specific responsibilities. Fifty per cent (50%) of leaders were elected (from a short list of nominees),

and forty per cent (40%) were appointed on the basis that they owned the shop. Other methods were consensus and shop -owner appointment.

Shops Ownership

The physical infrastructure of a shop is owned by a particular trader or collectively owned by a group of carvers. The land is rented from the government through the Carvers Association.

A single owner either allows a group of carvers to sell through the shop taking 10%, or occasionally 15%, of sales revenues for him or herself, or buys from any carver to sell at a profit. Revenues received cover the license fees and any excess is pure profit. Often a family member or two helps run the shop; sales, promotion, dusting etc.

Where shop-owners' co-operatives are formed each carver contributes 10% or, rarely, 15% of the sale price realized on each item. Revenue generated and not used for license payment may be put to a whole host of different uses; it is used to cover overheads but can also serve as a health insurance pool and sometimes was divided between carvers as a bonus at the end of the year. When the shop is fully stocked the carvers attached to it may sell to other shops or stalls.

Tribal Influences

Three tribes dominated the trading activity; Chagga comprised 42% of those surveyed, Zaramo 25% and Makonde 17%. All Makonde and Zaramo traders carved or finished off pieces; three of the four Makonde were carvers and finishers, whilst four Zaramo out of six surveyed were finishers only. All tribal shop-owners who were not Makonde and Zaramo worked only as traders.

Licensing

There is considerable bureaucracy and expense associated with obtaining official licenses. The criteria that must be satisfied in order to be granted a trading (and, automatically, a carving) license are:

- Ownership of the physical store infrastructure.
- Record of past tax payments to Tanzanian Revenue Authority (TRA).
- Recommendation from Health Officer and Ward Executive Officer if it is a new application.

The payments required are:

- Licensing fee (average annual rate) TSh. 200,000/- with large variation depending on years in business and location of stall.
- Income Tax (annual) approx. TSh. 400,000/- with large variation depending on revenue/sales.
- Stamp duty (monthly) approx. TSh. 10,000/- depending on capital stock.

All the above information obtained in West, V.W. & Malugu, I. (2003; 17), it was provided by the Chairman and Vice- chairman of Mwenge carvers market (CHAWASAWATA).

4.2 Characteristics of the Respondents

4.2.1 Sex of respondents (Carvers and suppliers)

Sex	Carvers	Percentage	Suppliers	Percentage
Male	50	100%	4	80%
Female	-	0%	1	20%
Total	50	100	5	100%

Table 4: Sex of carvers and suppliers

Source: Field data, 2009

In table 4, all carvers interviewed at Mwenge (100%) were male and there were no female interviewees. The data obtained from 'CHAWASAWATA' (Mwenge carvers association) indicated that there was only one female carver. The interviewer had the opportunity to contact the female carver but she could not interview her as she was busy preparing herself for her trip for expo in the USA. However, the carver explained briefly that she obtained her carving skills from Bagamoyo Arts College located in Bagamoyo, Coast Region. This reflects what Saetersdal (1998: 306) stated that traditionally carving was exclusively male activity like pottery to women.

Like for the carvers participation of female in supplying logs at Mwenge is also low, whereby male constitute 80% forming majority and the females 20%, being minority. As shown in Table four (4) above.



Photo 1: A female shop owner standing at her shop

Photographed by researcher May 2009

In Mwenge females shop owners (traders) are 70%, forming the majority while males constitute 30%, unlike the carvers and suppliers where males dominate the industry.

Sex	Traders	percentage
Females	7	70
Males	3	30
Total	10	100

Table5: Sex of traders

Source: Field data, 2009

4.2.2 Educational background of respondents

Level of Education	Carvers	Percentage (%)
University	-	0
Secondary	-	0
Primary (Standard Seven)	44	88
Not Having Formal Education	6	12
Total	50	100

Table 6: Educational backgrounds of the carvers

Source: Field data, 2009

The educational background of the study group was also investigated. It can be seen from the Table 6 above that the majority (88%) of the carvers were primary school leavers. The carvers who were not having formal education were 6 (12%) of all carvers interviewed, and none of the carvers had university or secondary education.

The educational level of respondents is an essential tool for attaining sustainable development. It has important influence on environment and sustainability of their businesses. In an interview conducted at Mwenge it shows that most of the Makonde are either standard seven leavers, or not having formal education at all. It is difficult to see how the future environmental programs can be planned and implemented by people who are not educated.

In addition to that, with good educational background Makonde carvers could be able to achieve better in the selling of their carvings, for example by keeping business records and communication with customers.

To substantiate the above concern, the carvers were asked on the average income they were getting from the carving activities, 86% stated that they did not know because they did not keep records. It is visibly difficult for the person to be able to acquire the relevant skills where the person does not have formal education or where the person possesses only the Primary education. Failure to keep record of the earnings is mostly associated with lack of the understanding of the importance of record keeping which is largely caused by illiteracy.

In the efforts to assist the carvers to be able to communicate in English language and enable them to effectively transact with foreigners who largely communicate in English, a group of the University of Dar- es- salaam local and international students have started an evening program where they teach carvers English language. One of the respondents revealed that not all carvers were able to attend the program because they were living very far from Mwenge and it was difficult to get public transport after class. Others failed to attend the program because they could not read and write.

During the interview with the carvers most of them were of the views that training to them was important and on entrepreneurship skills. Very few mentioned the need for the training in environmental protection. This is an apparent threat to the environmental protection as the users of the said products do not appreciate the need for the education of environmental protection which consequently may lead to failure in the campaigns for the protection of environment. It is believed that the environmental protection starts with the immediate user of the products because the users depend on the environment for living.

4.2.3 Age and marital status of respondents

The majority of the carvers interviewed were in the age group of 36-45 while the least carvers were found in the age group of 66 - 75.

Age	Carvers	Percentage
25-35	13	26
36-45	18	36
46-55	11	22
56-65	5	10
66-75	3	6

Table 7: Age of carvers
Source: Field data, 2009

The study also discovered that 78% of the subjects were married, while the remaining percent 22% were not married. And the 89% of the married carvers had children.

4.2.4 Ethnicity of respondents

Ethnic	Carvers	Percentage
Makonde	48	96
Mwera	1	2
Yao	1	2
Total	50	100

Table 8: Ethnicity of carvers
Source: Field data, 2009

From the total population interviewed at Mwenge carver's market concerning the ethnicity, the majority were the Makonde that is 96 percent. The remaining four percent comprised the Mwera and Yao; two per cent (2%) each. Hence, this proved that Makonde people in Tanzania are the ethnic group which is mostly doing the carving activities.

Unlike carvers, the traders comprised of mixtures of ethnicities. The traders interviewed belonged to Makonde, Kerewe, Haya, Chaga and Ngoni. The percentages was as follows: Makonde 2 (20%), Kerewe 1 (10%), Ngoni 1 (10%), Haya 3 (30%), Chaga 3 (30%)

Formerly, the carving activities were done by Makonde for cultural practices. But now since the purpose of carving has shifted from carving for cultural purposes to carving for income generation, other ethnicities have joined as this study revealed from the interview. Other ethnicities joining the carving activities is an indication that carving is becoming a national wide activity and this implies that more attention from government machinery and other stakeholders is needed for the sustainability of the industry.

Ethnic	Traders	Percentage
Makonde	2	20

Kerewe	1	10
Haya	3	30
Chaga	3	30
Ngoni	1	10
Total	10	100

Table9: Ethnicity of traders

Source: Field data, 2009

Ethnicity has also been seen to be relevant in the acquisition of relevant knowledge and skills used in the carving activities. Eighty percent of the carvers interviewed revealed that they had acquired the carving skills from their family members and mostly uncles, fathers, friends, brothers. This implies that the knowledge is acquired through teachings and practical guides by more experienced family members. This proves the statement by Gregory, et al (1999:14) that “frequently Makonde families hand down their carving skills from father to son”.

The skills and knowledge are however currently complemented by the knowledge and skills a person may get from the carving association and other relevant institutions like Bagamoyo Art College.

Source of skill	Carvers	Percentage
Father	10	20%
Uncle	11	22%
Brother	4	8%
Friends	8	16%
Carvings groups	5	10%
Own	5	10%
Relative from same ethnicity	7	14%
Total	50	100%

Table 10: How carvers acquire carving skills

Source: Field data, 2009

4.3 Uses of ‘Mpingo’

As previously stated in the literature review, the ebony tree (‘Mpingo’) has always been useful and serves various purposes both to the local and international communities. Mpingo tree has been used by the natives as fuel, charcoal, and in making pestles, combs, knives hafts and cups. Other uses, both local and internationally, include manufacture of music instruments, carvings and tourists curio, ornamental turnery, chessmen, paper knives, marquetry, walking sticks, bearing and slides, and abacus parts (Bryce, 1967:58).

Mpingo is also used to manufacture clarinet sets, carvings, flooring strips. In, 2007 29,953.15 kilograms of carvings were exported (The information from the officials in the Ministry of Natural Resources and Tourism).

As the 'Mpingo' is rare species and useful; most of the officials interviewed revealed that it is important that the trees should be protected along with other campaigns designated to conserve the forest.

Despite the utility and advantages of the Mpingo tree, most of the carvers however felt that it is difficult to control and preserve the 'Mpingo' tree as they considered it to be a natural tree that cannot be regenerated through planned and scientific means. This however was highly contested by the officials from the Ministry of Natural Resources and Tourism as for them the species can be regenerated through planned and scientific procedures. The only concerns on the part of the officials was that regeneration of the 'Mpingo' species can be effectively done in the area where the tree grows naturally and that it is difficult to protect the destruction of the 'Mpingo' tree.

4.4 Impact of the Makonde wood carving activities on the economic welfare of the artists.

This study intended also to explore on the impact of the wood carving industry to the livelihood of carvers in Tanzania. Through observation, interviews, informal talks and group discussions with the carvers and traders the study came out with the following:

It is difficult to measure the earnings of the carvers as most of them do not keep proper records of their daily earnings. Majority of the carvers spend their income to sustain their daily needs and on consumables. Most of them do not save for the expansion of the business. On the other hand one of the carvers stated that they could not have savings for business expansion as most of them sold their products to middlemen who always paid them very little.

Few of the carvers who were able to establish their earnings per month (carvers who constituted 14% of all carvers interviewed, mostly working as finishers and paid on daily basis) stated that approximately their earnings per month ranged from 90,000 to 300,000. This rough estimate indicates that the income of most of the carver at this level is not below the minimum wages in Tanzanians which is 65,000 per month. At this end one can be convinced to conclude that at this level carving activities provide income opportunities to the carvers and therefore sustains their livelihood.

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Photo 2: Carvers at work

Photograph by researcher May 2009

It was also revealed from the interviews conducted and questionnaires submitted that most of the Makonde carvers depend entirely on the carving activities for living. They do not have other sources of income to make living. Out of 50 carvers interviewed, only two (4%) carvers are also engaged in other economic activities. One work as a security guard (working at night from 7.00 p.m. - 6.00a.m) and the other a trader at Kariakoo market trading during low season. Most of the carvers were also constrained by lack of education from getting jobs in the formal sector. To most of the carvers therefore the carving industry is the major employer and most of them depend on the business to earn their living .This indicates also that to most of the carvers the industry creates jobs and in a country level it helps to reduce unemployment rate. This justifies the observation made by one official from the Ministry of Industry Trade and Marketing who stated that although the Makonde carvers have not been effectively organized, the industry needs a close attention of the policy makers for its sustainability as it creates jobs and if effectively explored it may lead to the increase in the contribution of the sector to the national economy. The official further explained that in the effort to strengthen the business opportunity to the SMEs that include carvers, the Ministry had prepared various forums geared towards sharing knowledge and experience for the sustainable development of the SMEs generally and the carving industry in particular.

The table below shows the income generating activities performed by carvers.

Activity	Carver	percentage
Carving	48	96
Trader	1	2
Guard	1	2
Total	50	100

Table 11: Income generating activities performed by carvers
Source: Field data, 2009

In order to establish further the extent to which the carving activity contribute to the earnings of the household, the study asked a question to find out if other family members contributed to household income. The study revealed that the families of most of the carvers (96%) depend entirely on the carver’s income for a living. Most of the family members of the carvers are either not employed or do not have stable income to contribute to the household income. The study has revealed that most of the wives of the carvers are also primary school leavers or with no formal education at all. This factor worsens the chances for them to get employed by the formal sector of the economy and other employers and therefore remain as housewives. This is another indication that with carving activities carvers are able to sustain their livelihood and family members without any other source of income. From this end it may be concluded that to a large extent carvers and entire family members depend on carving activities for a living. Below is a pie chart showing percentage of the sources of contribution of income in a family.

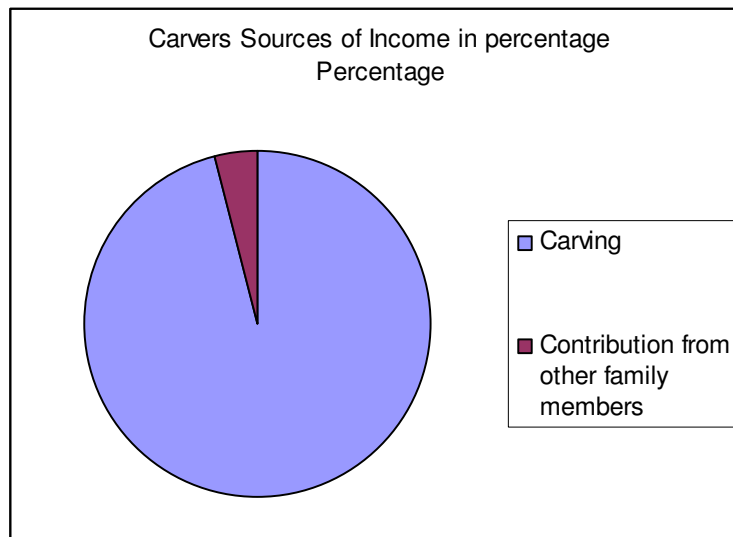


Figure3: Sources of contribution of income in carvers families
Source: Field data, 2009

On the other hand, some of the carvers whose household earnings do not depend entirely on the income from the carvers stated that the income contributed by the family members has assisted them in cases where they don't get the market for their product and in some cases the income have been useful and assisted them in buying the Mpingo from the sellers. Most of them further revealed that at the time when the business is low they can sustain their lives on the spouse's income. This explains the fact that for the sustainable development of the carvers' diversification of the business is very important as the same may assist them at the time when the business is low and the same could be assigned to the housewives who are largely unemployed.

Despite the involvement in carving activities for the purpose of economic gain, carvers have also conducted these activities for other reasons. Some of the carvers were not motivated by the economic gain available from the said activities. Some of the carvers do this business for leisure and some because of the inherent skills that they possess either naturally or through various teachings and practical guides from the members of the family. These reasons may have positive and adverse impact on the carving industry. In some cases it was revealed that for them economic gain is not a primary objective as they would be happy to see the product of their art rather than concentrating on the economic impact resulted from the transactions. In addition to that, since the carvers engage in the carving activity with interest, they perform their job well and hence increasing the artistic value to carvings produced. By increased value the carvers enhance customer's satisfaction which in turn attracts more customers to buy and thus expand the market for their carvings and hence increase the earnings. The table below shows the reason for their involvement in carving activities.

Reason	Carvers	Percentage
Earning Income	22	44
Culture	23	46
Hobby	5	10
Total	50	100

Table 12: Factors which make the respondents perform the carving activities
Source: Field data, 2009

The benefits obtained by Makonde carvers at Mwenge include: getting money to buy food, to pay rent, cloth, paying school fees for their children. Others have been able to acquire properties, Two carvers (4%) have been able to buy a house and a farm. However, 18 percent of all respondents said they did not acquire any benefits, and sometimes they did not even get money for their transport to Mwenge. Six carvers (12%) stated that they gained social benefits such as maintaining their culture. And lastly, one interviewee said he was happy to be the boss for himself. This finding reveals that most of the carvers have not been able to acquire surplus from their earning. However, they have been able to afford to buy their basic needs such as food, clothing and shelter. This also justifies the importance of carving activities to carver's livelihood. Table no 13 below Shows benefits obtained from carving activities

Benefit
Money
Acquire properties
Social benefits

Table 13: Benefits obtained from carving activities

Source: Field data, 2009

The case below states the importance of the carving activities to the carvers as explained by the responses to the interview conducted to Mr. Aloys on of the carvers at Mwenge Area

Case 1

Aloys has been able to sustain his life through carving activities; he is living at Mbezi in a rented house with a family of four, a wife, one child, his sister's child. Aloys is able to pay the house rent.

Through carving, Aloys has been able to pay rent, buy food, pay school fees for two children, who are in public primary schools in Dar-es-Salaam as well as buying other small items like furniture.

Her wife is a housewife and she depends on her husband's earning. Aloys, like many of the carvers at Mwenge is a Makonde, who originates from Mozambique. He was born in Mozambique. He came to Dar-es- Salaam to join his uncle who was working as a carver.

Aloys, a 36 years old, and has never gone to school because his father was not able to pay for his studies. He started the carving activities in 1996 at Mwenge carvers market. Like many other Makonde carvers at Mwenge he obtained the skills from his uncle.

Aloys depends entirely on carving activities to sustain his life. He does not have any other means of getting money.

When asked if he was satisfied with the earnings from carving activities Aloys said, he was dissatisfied with the income because he was not able to get the surplus money to save, but he did it since the carving activities enabled him to get basic needs. He had no other means for making a living. Being uneducated and having only carving skills it was hard for him to be employed in other fields.

In the efforts to understand the market conditions of the carvings and assess the impact the same as to the carvers economy, the study asked questions that were aimed at exploring the conditions for the carvings at Mwenge Area.

It was revealed from the study that there are many shops at Mwenge where carvers and traders display their products. However, the main complaint by both carvers and traders was that they were not getting enough customers as to their expectation. One of the respondents said that the sales of carving at Mwenge were low because the place was not known to most of the tourists

This proves the importance of the statement that “the publicity of the market in the Dar es Salaam could easily be improved: most tourists have not heard of it. Possibilities include advertising in lodgings, employing touts to guide tourists to market, or handing out fliers to new arrivals at the airport. Adverts could be placed in the international woodcarving magazines, and could even attract more tourists to Tanzania” (MCP, 2001).

The carvers and traders also pointed out that the current world financial crisis, and 2001 U.S.A Twin Towers attack (commonly known as September Eleven, 911) is also a cause for the decline in the number of tourists coming to Tanzania and this affects their business as well.

Apart from selling in Tanzania there are few traders and carvers among the interviewed, approximately 12 percent of the traders and 2 percent carvers sell their carvings products outside Tanzania and mainly in South Africa and Kenya.

It has been established that Tanzania has enhanced its foreign currency through carving activities. For example, in the year 2006/2007 Tanzania exported carvings valued at USD 48,650,587.80 in different countries in the world (Information provided official from Ministry of Natural Resource and Tourism).

The participation of carvers to export market is low compared to traders or other enterprises. If efforts can be taken to build capacity of the carvers so that they can do better than what they are doing now the value of the exports can be enhanced. The support may either be in form of financial or technical support.

The study tried also to establish whether carvers are satisfied with the prices offered for their carvings. The majority of carvers and traders amounting to 89 percent face pricing problems. Most of the offers are very low as the same does not really reflect the market value of the carving products. The majority, 96 percent, of the carvers have accepted the price offered because they lack the bargaining powers.

Even though the carvers are able to get money to buy food, clothes, paying for children education, most of them do not appreciate that carving activities have positively affected their life.

The majority of the carvers interviewed 90% revealed that the earnings from the carving activities have not been able to satisfy their entire needs while the minority 10% said they have seen changes. Below is a pie chart showing carvers response to the question; do you think carving activities have positively affected your life?

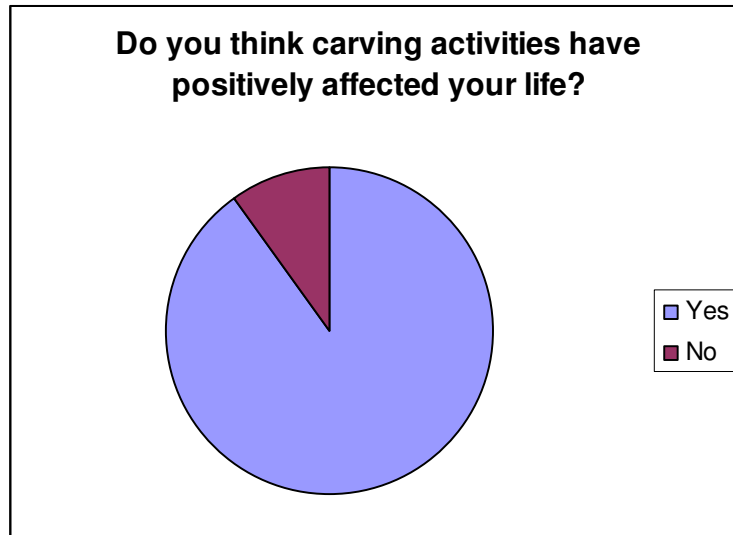


Figure 4: Carvers response to the question; do you think carving activities have positively affected your life?

Source: Field data, 2009

As previously stated, in the efforts to protect their rights and have a united voice in matters relating to the carving activities, carvers at Mwenge formed an association called 'CHAWASAWATA'. In an interview with the chairman of the association ('CHAWASAWATA'), the chairman stated that apart from other activities the association was formed to ensure that the economic interests of the carvers are protected. The association legally requires carvers to be members of groups that are affiliated to the association. Individuals are licensed to carve when their group is associated with a shop/stall that has registered, for a fee, with Mwenge Carvers Association.

The challenges that the association is facing recently is that there are new carvers that are coming to join their friends or relatives who are in association without informing CHAWASATA. This situation has had an adverse impact to members of the groups that are affiliated to the association. In some instances friends and relatives have walked away with the sales of the other carvers and because the whereabouts to most of them are not known, it is difficult to trace them. On the other hand unregistered carvers also face some challenges when selling their products as they do not have place to display their carvings. Rarely do they get direct customers for their carvings because they do not have access to the shops and very few customers go directly to them.

During the interview, the chairman revealed also that despite these few problems, the association has been useful and to a large extent it has in several occasions helped carvers when their interests are in jeopardy. But on the other hand most of the carvers view the association as an inactive organization that needs to be dynamic and more relevant and vibrant to the stakeholders. They were of the view that the association should be more proactive and assist members in

looking for the training opportunities, proper markets for their products and improve their working environment. This in turn will add value to the carving products, sales and other related activities that surround carving.

From the above findings it has been noted that, associations are more useful and relevant to the carvers than individual carving. Although carving is mostly individual talent but the relevant knowledge can be acquired through training and in that respect being in an association can be advantageous in terms of pulling resources together and economies of scale. If the resources are pulled together carvers are able to buy shops to display their carving, which in turn increases their sales. Sales have an impact on earnings; hence their economy will also improve.

In order to test their understanding of the relevance of the raw material for their business, the 'Mpingo' tree, carvers were asked whether or not their livelihood is threatened by the depletion of the 'Mpingo' tree. This question was also aimed at testing whether the carvers largely use other species for their carving activities.

Eighty Four percent (84%) of all carvers interviewed said that their livelihood would be threatened by depletion of the 'Mpingo' trees while sixteen percent (16%) said 'no' to the question.

Those who said that their livelihood will be threatened stated that Mpingo is the only tree species they use for their carving activities. They argued that most of the customers prefer carvings made from Mpingo than any other trees. They were of the views that depletion of the 'Mpingo' tree would mean termination of the carving activities which in turn would affect their livelihood. They even went further to suggest that if the 'Mpingo' species disappears completely they would rather opt for new occupation since there is no business without 'Mpingo'.

For those who said that their livelihood is not going to be threatened by the depletion of the Mpingo tree stated that they will opt for other types of trees and they were confident that the markets of the carving products do not entirely depend on the products from the Mpingo species. They argued that the carving styles and creativeness is the greatest tool for the carving business.

To this end, it is established that there is a correlation between the need for the protection of the 'Mpingo' and the improvement of the economy and livelihood of the carvers as well as suppliers and traders.

As the sustainability of the carving activities depends also on the ability of the said activities to satisfy the basic and other needs of the carvers, the carvers were asked whether the sustainability of the carving activities depended on the earnings they are getting from the sale of the carving products. This questions reserved variety of answers. Those who said 'yes' argued that the suitability of the business to a large extent depends on the earnings from the said business and since most of the carvers were not satisfied with the returns from the business, the sustainability of the business is questionable. They argued further that new generations at Mwenge (youth) are not ready to take over and develop the activities as they see it as unprofitable, difficult and above all they do not see their parent's success in the business. They want business that will do more than satisfying only basic needs. In the course of discussion Mr. Rutayuga, one of the carvers lamented;

Currently, the young generation is not inspired to join the carving industry most of us die poor. Although historically eagerness to do carving activities was motivated by the parents and other relatives who were in the business we have seen recently our kids disinterested with our business because we are all poor! If we want to develop our business and encourage our sons to follow us in this business we should look for the better market otherwise we are doomed.

Others who said ‘no’ to the question advanced reasons that sustainability is not related to the earnings. They argued that the sustainability of the business do not depend on the earnings but rather the skills that individual has in the carving. To them the carving business is not sustainable because most of the new generation is engaged in formal education which does not sufficiently address the need for developing skills in carving. For example one of the carvers said “*my son does not like the business because at school they do not teach them to carve and unfortunately most of the time this kid is at school.*”

On the other hand those who argued that the business will not be affected by the poor earnings argued that very little has been done to explore on the market of the said products and thus so far they see prospects in the business specifically because of globalization.

4.5 Impact of Makonde wood carving activities on environment and contribution of carving activities to the threat of depletion of Mpingo tree.

Mwenge carving market has varieties of carvings and most of it is made by Mpingo. This implies that Mpingo is highly preferred by carvers thereby causing its depletion.

This has been evidenced by this study that the majority (84%) of the carvers at Mwenge market prefer making carvings using Mpingo.

However, very few respondents (16%) use Mpingo as well as other types of trees to make carvings. This statistics is the evidence that Mpingo is highly preferred by carvers which in turn do subject the species to its depletion.

The carvers mention that other types of trees which are used in making carving products includes, Mango tree, ‘Mkorosho’, ‘Mmmazi’, ‘Mkuruti’, ‘Mkango’, ‘Mkungu’, ‘Mwarobaini’, ‘Mkarambati’, ‘Mkangazi’, ‘mninga’, ‘mwsaka’, ‘Mhangachuma’, ‘Mwaraha’, ‘Mkongo’, ‘Mnazi’, and ‘Mwarobaini’. The table below shows the types of trees species the carvers identified as viable ‘Mpingo’ alternatives.

Trees
‘Mkuruti’
‘Mkorosho’
‘Mkarambati’
‘Mkungu’

Mninga
'Mnazi'
'Mhangachuma'
'Mwaraha'
'Mwarobaini'

Table 14: List of alternative Trees
Source: Field data, 2009

It was observed through this study that despite the availability of many other trees which can be used for carving, the carvers use mostly the 'Mpingo' tree. This indicates that the uses of the 'Mpingo' will continue to increase as 'Mpingo' tree is highly demanded both by the suppliers and the carvers. This implicitly indicates that the market prefer 'Mpingo' products than carving made from other tree species and thus increases the chances of depletion of 'Mpingo'.

In order to establish the extent to which the 'Mpingo' tree is used by the carvers and therefore establish whether the same may lead to its depletion, carvers were requested to quantify the extent to which 'Mpingo' tree is used yearly. And as pointed out that effective management and conservation of the 'Mpingo' in Tanzania relies upon an understanding of carvings supply and demand drivers (West & Malugu, 2004:4). These questions received unsatisfactory answers because most of the carvers do not keep records of the supplies of the logs. Most of them stated that the availability of the 'Mpingo' tree when needed is much of their concern and demand for 'Mpingo' largely depend on the availability of the market for their products. Some explained that it is difficult to quantify but the 'Mpingo' tree is the highly demanded tree species at the centre. The related question to the officials of the Ministry for Natural and Resources Tourism was for them to provide inventory of the 'Mpingo' trees. The official explained that apart from the requirement under Forest (Amendment) Regulations, 2007 that the harvester of the said species is required to obtain a permit for harvesting and paying registration fees and other fees where the produce is cut and removed, the inventory of the said 'Mpingo' tree has not been specifically done. The inventory covers forest products in general. The official further explained that it is also difficult to provide the specific quantity of the use of 'Mpingo' tree because most 'Mpingo' trees are harvested illegally and without permit.

Ministry officials were also asked to explain whether the carving activities lead to the depletion of the Mpingo trees. Most of the officials answered this question affirmatively although they were not able to explain the extent to which carving activities caused such depletion. One official stated that although it is hard to state categorically the extent to which the species is depleted but in most areas where the tree used to be in abundance the supply is shrinking.

Carvers were also asked to explain the reasons why they do prefer Mpingo compared to other tree species. This question intended to establish the need for the 'Mpingo' and whether other trees can be sufficiently used as alternative to 'Mpingo'. Most carvers explained that they do not use much of other trees for the carving and prefer 'Mpingo' tree because the tree is not easily affected by insects, mostly the species does not have cracks and above all carvings made from 'Mpingo' have good appearance and their blackness is preferred by customers

Reasons why carvers prefer ‘Mpingo’
Customers prefer ‘Mpingo’
Good appearance
Not eaten by insects
No cracks

Table 15: The reasons why carvers prefer ‘Mpingo’ for making carvings

Source: Field Data, 2009

It is, therefore, important to note that ‘Mpingo’ is a valuable and most preferred tree species and therefore strategic interventions are needed to protect the tree for its sustainability. This however does not necessarily mean that alternative species should not be encouraged. The use of other species may help in the eventual conservation of the ‘Mpingo’ tree and hence its sustainability. Alternative species have also been used and proved to be successfully. This was evidenced by declarations by Mr. Emmanuel as quoted below;

Case 2: Mr. Emmanuel Mngoma

Mr Emmanuel is a Makonde 47 year old born in Tanga. His father lived in Tanga during the colonial era and he was working in the sisal plantations as a migrant laborer.

Mr Emmanuel was carving by using ‘Mpingo’ tree. Tanga being rich with coconut trees Tobias decided to stop carving with the ‘Mpingo’ and started to carve by using coconut wood .He made earrings, necklaces, hair bands and pots from the hard part of coconut.

Mr. Emmanuel then decided to shift to Dar- es- Salaam. Mr. Emmanuel is a married man with three children. He joined the Mwenge carving market and now is the only person at Mwenge who is using coconut to carve. He says getting coconut to carve is easy and cheap and it takes him few hours to carve. He is getting an average of Tshs 500,000 as profits.

Mr. Emmanuel is a good example of a person who shifts from Mpingo to coconut tree yet he is getting customers and earns profit.

The study also wanted to know if carvers and suppliers were aware of the illegal harvesting of Mpingo. The least number of carvers indicated that they were aware of illegal harvesting that is only (11%) of all respondents. However, forests officials stated during the interview that there were still some carvers and suppliers of ‘Mpingo’ who acquired the wood illegally and without permit. It was also revealed from the discussion with the official that illegal harvesting of ‘Mpingo’ was attributed, among other things, to the fees charged on ‘Mpingo’ logs and in order

to reduce this, the Government had its fees on Mpingo logs reduced from 260,000 per one cubic meter to 160,000 per one cubic meter.

According to forest officials the control measures are applied to all forest products and there are no specific measures to Mpingo. However, when carvers and suppliers of Mpingo were asked if they knew that someone has to obtain permit before cutting Mpingo majority (98% and 100% respectively) says yes. This question was been raised in order to know if carvers were aware that a permit was required if a person wanted to harvest Mpingo tree. This shows to a great extent that measures that are in place to control the illegal harvesting of Mpingo have been effectively disseminated to the users.

In a discussion with the officials from the National Environmental Management Council (NEMC) it was revealed that carvings activities contribute to the destruction of environment since the same involves clearing of forest to obtain 'Mpingo'. The remaining materials which when not properly managed also destroy the environment.

Another official from NEMC also stated that because 'Mpingo' grows for many years it acts as the carbon sink which is good for soil thus excessive harvest of the tree reduces its presence in the soil.

The concern was also that collections of the harvested logs by using big trucks normally lead to destruction of small trees and plants and small regenerated 'Mpingo' tree. And since trees have association with other living organisms (ecosystem) the depletion of 'Mpingo' causes damage to other organisms.

Forest officers from Ministry of Natural Resources and Tourism answered in affirmative the question that carving activities cause depletion of Mpingo. But stated that the extent of depletion of 'Mpingo' caused by carving activities is not high compared to other activities, they mention making of charcoal, and wood exportation as the major causes of depletion of Mpingo.

On the contrary the District forest officer of the Kinondoni Municipality stated that there is great depletion of 'Mpingo' trees. He further stated that carving activities have increased dramatically and as a result of the increased rate of exploration specifically using heartwood has led to the depletion of the 'Mpingo' species. He further argued that most of the matured trees have been cleared down and some 'Mpingo' traders have started importing the logs from Mozambique.

While officials objectively argues that carving activities contribute to the depletion of 'Mpingo' and destruction of the environment, it was revealed from the group discussion with carvers and traders that most of them do not believe that carving activities contribute to depletion of the 'Mpingo' tree. Only 35% of the carvers and traders believe that carving activities do contribute to the depletion 'Mpingo' and destruction of environment. They mention preparation of charcoal, preparation of farms, fire, and companies which export wood abroad as the major causes for the destruction of Mpingo. Charcoal making was mentioned as the leading cause of the depletion of Mpingo. They further argued that carvers do select the 'Mpingo' tree contrary to the charcoal making people who normally clear the whole field.

The figure below shows other activities apart from carving which contribute to the depletion of ‘Mpingo’.

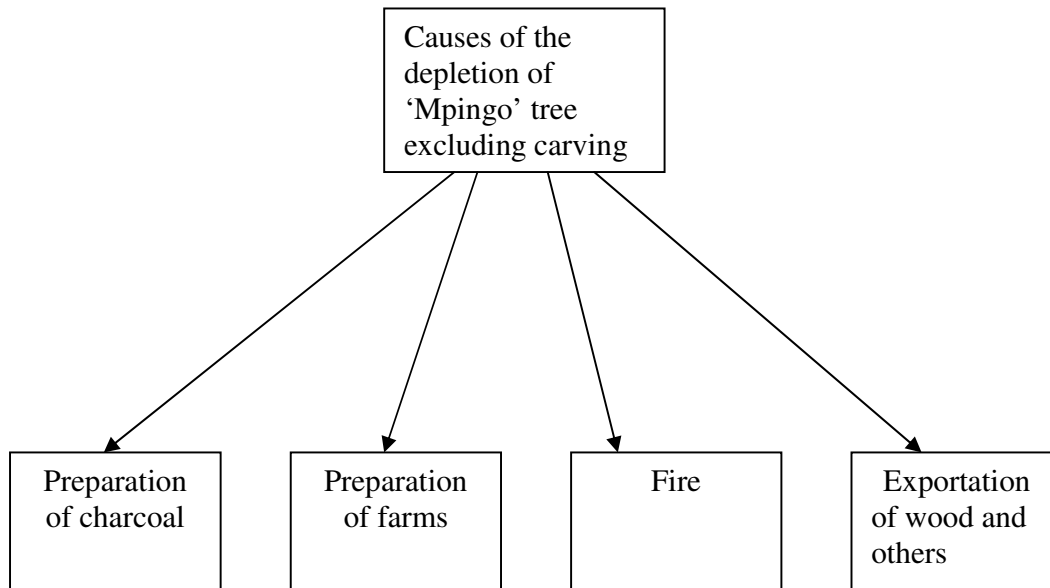


Figure 5: Other activities which contributes to the depletion of ‘Mpingo’
Source: Field data, 2009

Kaale et al (2001) in Dallu (nd: 11) pointed out that “*Charcoal production is a major cause of habitat loss in areas close to large cities and alongside main roads. Increasing demand of charcoal in urban areas has increased deforestation in rural areas with serious environmental degradation. A recent study in the Coast region has shown that in the past charcoal producers practiced selective felling but, currently due to low intensity of trees per unit area, some charcoal producers are practicing clear felling. Most of the natural vegetation of Kazimzumbwi forest reserve in the outskirts of Dar es salaam has been cleared for charcoal production to meet the ever growing demand of wood fuel in the city.*”

Mpingo is mostly obtained outside Dar-es-Salaam although in some areas during the past (Pugu kazimzungu and Chole area) ‘Mpingo’ was being harvested. Currently, however, as revealed by the suppliers, carvers and traders interviewed at Mwenge Mpingo tree is obtained from Bagamoyo ,Kilwa, Rufiji, Lindi, Morogoro, Mtwara, coastal region, and Ikwiriri. Most of the areas in Dar es Salam Mpingo trees have been depleted or people have been banned from harvesting ‘Mpingo’ from such areas to allow the regeneration of the species.

The study was also interested in finding out whether carvers and supplier of carvers were interested in re-planting trees in their localities or any area identified. All respondent revealed that

they liked to participate in planting trees. For example, the majority of the respondents did realize benefits of Mpingo and other trees in general to their lives. This is largely because Mpingo provided them with income to sustain their lives. The major constraint in realizing this interest was stated to be lack of required knowledge in 'Mpingo' regeneration and the funding of the said process.

In general most of the carvers, suppliers and sellers had positive attitudes towards re-planting of Mpingo. However, there were few who did not believe if Mpingo could be re-planted, what they believed was that Mpingo grows naturally.

Since both carvers, sellers and suppliers show positive attitude towards re-planting of trees tree, government and other stakeholders dealing with the environment should provide support to the maximum level.

Additionally National Environmental Management Council (NEMC) official suggested that the Ministry of Natural Resources and Tourism should assist carvers by providing them or even assisting them in getting appropriate land where they can regenerate and harvest the 'Mpingo' tree in a planned and scientific manner. NEMC official was of the view that stopping carving business can not solve the entire problem of 'Mpingo' depletion but may worsen it. As the demand of Mpingo tree is increasingly high the solution is to keep up with its pace which is regeneration of the 'Mpingo' species. By so doing the problem of deforestation of Mpingo will be reduced.

4.6 Sustainability

The information obtained from the respondents reveals that carving activities have direct adverse impact on the environment and is actually one of the causes to depletion of Mpingo. While it is obvious that Mpingo tree is beneficial to the carvers, its sustainability is very important especially for the coming generation. It has been revealed from this study that sustainability of the Mpingo tree is threatened and in order to solve this problem the carving activities need to be closely monitored and controlled.

Carvers at Mwenge carving market are facing limited supply of Mpingo logs. The following information during the interview proves the situation. The carvers when asked about availability of logs 81 % of the respondents said they were not getting the logs easily. Others (18%) said they did not know while the remaining minority (1%) said they were getting the logs easily.

Shortage of log supplies were explained to be a result of the following: the time taken for the tree to grow makes its availability difficult, the logs are now obtained very far from where they used to grow, higher transport costs, higher rate of harvesting fees, and cumbersome and tedious processes in getting the required license for harvesting.

Limited availability of 'Mpingo' for carving at Mwenge is a sign that the availability of the 'Mpingo' tree has dramatically decreased. The fact that carvers stated that of recent 'Mpingo' tree

cannot be easily obtained in nearby locations; it implies that the government plan for regeneration of 'Mpingo' tree is a workable solution. As most of suppliers revealed that they have been prohibited to harvest 'Mpingo' from some areas such as Kazimzungu, Chole and Vikunguru, the areas that have been specifically designated to allow regeneration, is a positive sign that carvers adhere to the government directives and have been conscious on the need for regeneration of the 'Mpingo' species.

The study also wanted to establish whether the carvers were worried about the availability of 'Mpingo'. From the interview and questionnaires submitted, 70 percent of all carvers interviewed and 60 percent of all suppliers interviewed stated that they were worried about the availability of 'Mpingo'. The worry has been attributed to their belief that the tree grows naturally and the time taken to regenerate the species is too long. They argued that it takes even 60-100 years for the 'Mpingo' tree to grow and as the use of the tree has increased; they are now forced to go very far to look for the tree.



Photo 3: Interview with carvers

Moreover, the study wanted to ascertain whether the carvers, suppliers were getting difficulties in getting the logs, 91% of all carvers and suppliers stated that they were getting difficulties in getting the logs due to difficulties in procedures for securing permits to harvest. They further

explained that they had to travel to other regions to get the logs. Others were complaining that the fees for the permit were too high for the suppliers and carvers to afford.

When asked on their views on the strategies they would consider appropriate in dealing with the problem of Mpingo depletion, 30% of the carvers and 25% of the suppliers considered that the establishment of plantation for the regeneration of the ‘Mpingo’ tree especially in the areas where the ‘Mpingo’ tree grows naturally was the most appropriate measure.

Moreover, 40% of carvers and 35% of all the suppliers suggested that the use of alternative tree species should be encouraged. This suggestion tallied with the finding of this study that there are a lot of other trees which can also be used for carving, and that these opportunities are not being effectively utilized for a number of reasons including, among others, lack of innovative skills and readiness to try as avenues. Many of these tree species are used in very rare cases. Carvers and officials from the Ministry of Natural Resources and Tourism considered that awareness campaign should be launched and assist in the dissemination of information concerning the alternative trees for the wood carving.



Photo 4: Carving products from ‘Mpingo’ woods and other tree

Photograph by researcher May, 2009

Others suggested that the measures should be taken by the government to control illegal making of charcoal, setting of fire during farm clearing and illegal exportation of the logs. In addition, the law should be strengthened to control other illegal activities. This however has been addressed by the law as the Forest Act, Act No 89 of 2002 which provides that a fine of not less than Tshs 200,000/= and not exceeding 1,000,000/= or imprisonment for a term not exceeding two years or both such fines and imprisonment shall be imposed for illegal harvest of the forest products

In addition to that, 'Mpingo' has been classified as class one in the classification of all trees and the fees has been raised. Check points have been established to make sure the harvesters adhere to all procedures of harvesting. Carving traders are registered by the government and registration certificate is issued with the control numbers geared towards controlling them with the view to reduce deforestation. Patrol teams of forest officers to all forest areas to control illegal harvest have also been established by the government. Forest surveillance unit which control harvesting and transportation of the forest products in general has also been established. Harvesting documents have been controlled with special mark which makes it difficult to be forged by the users. The forest harvesting plan is also requires to have sustainable harvesting.

The carvers and seller were also asked if they appreciate the role of the government and other stakeholders in controlling carving activities. The majority (75%) of the carvers and suppliers and traders stated that government has not been proactive in regulating the carving activities. They argued that the only significant role of the government in the carving activities was the prohibition of illegal harvesting of the 'Mpingo' tree and providing license for harvesting of the 'Mpingo' tree. They further argued that the government has failed to assist them in getting the market for their products and even provide them with capital for the expansion of their business. From their submission it is argued that if the government prioritises the carving activities the same will contribute significantly to the national income and specifically to the increase in foreign reserve. Those who argued that the government had a significant role stated that the government has allocated the Mwenge area for the carving activities. They further argued that the government has been organizing various expos though they have not been able to participate because they do not have enough capital to pay for the expenses of expos. All these together indicate that though the role of the government is somehow appreciated although the government needs to do more to the carving business. In general carvers, suppliers and traders are arguing that the government needs to have an upper hand in controlling, regulating and even providing necessary support that include capital and market for the carvings.

The officials from the Ministry of Natural Resources and Tourism were also asked on the role of the government in carving industry. They explained that the role of the Ministry is to ensure that the 'Mpingo' harvesters adhere to procedures like registration, license for harvesting, and permit. Every district is required to establish the management plan that explains the available resources against the intended harvest. It is a requirement of the law that the district which does not have the management plan should not be allowed to harvest. Inventory should be carried out because it helps in preparation of management plan. Up to now there are 21 districts which have already prepared their management plan. This however does not specifically address the management of each tree species and as a result it is difficult to ascertain the inventory of the 'Mpingo' tree.

The Ministry has also prepared a guideline on sustainable harvest and trading in forestry products (2007) and circulated to all districts. In the guidelines, each district is required to have harvesting

committee. The committee is composed of the chairman who is the District Commissioner, the Secretary who is the District Executive Director and other members that include the District Water and Sanitation Engineer, and the District Forest Officer. The committee further includes the officials in villages with reserved forests. The representatives are from both political and executive positions; the Village Chairpersons and the village executive officers respectively. The committee is mandated to scrutinize the applications for harvesting of forest products. The committee is also mandated to monitor and evaluate the harvest of the forest products. The committee is required to submit report to the Director of forest in the Ministry. In general the formation of the committee is aimed at ensuring that harvesting of forest products follows harvesting procedures and regulations.

The Ministry also is interested to know how much carving contributes to the GNP of the country. All exporters of carvings are registered and make sure that those who export the carvings have permit. No body is allowed to export without a permit.

In the course of fulfilling various tasks, the officials in the Ministry of Natural Resource and Tourism pointed out that there are also challenges like illegal harvesting, shortage of staff, and financial problems. They argued in order to ensure that harvesting is sustainable joint efforts between the government and the citizens are needed and this can be achieved if there is compliance to the guideline on joint forests management 2006. They further argued that in order to ensure that the legal harvesting is controlled the patrol unit established under the forests act no 14 of 2002 should be strengthened in terms of capacity and financial resources.

5.0 CONCLUSION

This study shows that carvers have been able to sustain their life through conducting carving activities. Majority of the carvers have been able to acquire their basic needs, food, clothing, shelter, but they have not been able to get much for saving.

The study then proves the statement by Chingombe & Pedzisai (2006 : 9) in their study titled “craft industry impacts on the environment and a community’s social welfare in Zimbabwe” that the craft industry helps crafts persons to met basic needs yet too low to free them from poverty”.

The carving activities are important for especially poor livelihood in Tanzania. However, the “Mpingo” tree which is mainly used for carving is depleted due to increasing demand for the tree. Therefore, the management of these tree resources is crucial for both the carvers, suppliers and traders since their families depend mostly on the tree for living.

With unemployment problem in the country carving activities is important for Makonde and non- Makonde who are engaging in the carving activities. Hence, efforts should be taken not only to conserve the tree but also to educate and provide support to carvers like entrepreneurship education, and financial support for industry to be beneficial.

There should be a balance for use and conservation, “hardwoods like “Mpingo” must be protected; on the other hand, carvers should be able to make a living with their skilled trade (Miller, 2000)”.

“The prevalence of poverty is still high in Tanzania. According to the Household Budget Survey of 2000/01, the proportion of the population below the national food poverty line is 18.7% and that below the national basic needs poverty line is 35.7%. The poor rely heavily on natural resources. For instance, given the prevailing poverty, exploiting timber resources for short-term gain may be the preferred strategy for many. It may even be rational for poverty stricken communities to decide to exploit prized species to extinction and invest the proceeds in other income generating activities or in education for their children. Given this situation, for conservation to attain a higher priority in a devolved setting, ways of making it pay for local people have to be found”(Songorwa, 2007:2).

To mitigate the overexploitation of the tree, forests need to be managed by the government. In Tanzania, the management to the forest sector is mainly implemented by control patterns that are directed by the forests laws and regulations.

The efforts to control the tree which started from the district level are also very important for effective management of the tree and smooth implementation.

If the measures to conserve the tree are not going to be taken, the tree will be in danger as already the signs of limited availability of the tree are in place.

The control of the carving activities made by the government is however hindered by a lot of problems. Therefore, this study indicates that these control measures prove to be ineffective in practice. For example, the ways to apprehend illegal harvesters are not effective due to lack of financial, human and technical resources.

Until now, the government has not been able to control the illegal harvest of “Mpingo” and other forest products in general. Interviews with carvers and suppliers in Mwenge confirmed that there is still illegal harvesting of “Mpingo” from the government forests.

Besides controlling harvesting, the government should try to convince carvers to use the alternative tree species. The research found that carvers have negative attitudes towards using the other tree species. Hence, the challenge is how to change the perception of carvers from using “Mpingo” to using other tree species. It is a challenge because 90% of the carvers interviewed stated that they would not like to change to other tree species because “Mpingo” is preferred mostly by their customers.

Ministries and other stakeholders having much control on the forest products and less efforts with the issues concerning the direct benefit to carvers like marketing of their carvings, or training on entrepreneurship skills or development of Mwenge business environment is a weakness which need to be fixed. Even if there are no specific measures to control “Mpingo” there are at least rules and regulations for forests products in general. Therefore, further research on the role of government and other stakeholders in controlling carving activities is important.

In addition to that, the Tanzanian SMEs policy addresses the development of SMEs in general. And there is no specific efforts geared towards promoting carving industry like it is in other sectors of the economy like agriculture. That is the same with the Ministry of Natural Resources and Tourism; there are no policies and/ or legislations specifically designated on “Mpingo” tree apart from those which are designated for forest in general.

Moreover, markets and low prices to carvings are pointed out as problems in Mwenge and especially to carvers and need a more integrated approach. Any interventions should take this problem into account to improve the earning of carvers.

Many wood carvers have showed positive attitude towards planting of tree, this shows that wood carvers are of much interests to the future of the tree and their business in general. However, there are no any efforts made by neither the government nor nongovernmental organizations to try to incorporate carvers in tree plantation.

Hence, different stakeholders in the local communities also need to be more active in terms of support to carvers especially who showed positive attitude towards tree planting but they are without any support. For example on the on-going national campaign to plant trees every year, the government should also encourage all sectors like carvers to participate in planting trees.

To this end the study echoes what was stated by Chingombe & Pedzisai, (2006) that “craft industry is an essential livelihood strategy as it enables carvers to attain income and hence enables them to meet their basic economic needs.”

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APPENDIX

QUESTIONS

Personal Questions

1. Sex _____
2. What is your age?
3. What is your level of Education?
4. What is your marital status?
5. What is your tribe?
6. Where were you born?
If born elsewhere, how long have you lived in Dar-es-Salaam?
7. Where do you live in Dar-es-Salaam?

Economic importance

7. What is your earning per month?
8. Are you solely depending on the carving activities for your living?
9. How much of your earning is from carving activities?
10. Are you the earnings from carving activities satisfying your needs?
11. What benefits do you get from the carving activities?
12. When did you start the carving activities?
13. What made you start the carving activities?
14. How did you acquire the carving skills?
15. Have the carving activities increased your income? To what percentage?
16. Do you think the activities have positively affected your life why?
17. Do you have any other source of income? mention
18. What is the size of your family?
19. Does your family depend solely from your earnings?
20. What percentage of the house hold income is contributed by other members?
21. What is the source of their income?
22. What does this business mean to you?
23. Would your livelihood be threatened without 'Mpingo'?
24. Where do you sell your products?
25. Are you happy with the prices paid for carvings?
26. How many customers do you get per day, and how much approximately do you get?
27. Do you sell carvings outside Tanzania?
28. How do you spend your money? Please list the items.

What is the impact of Makonde wood carving activities on environment?

29. How much 'Mpingo' do you use each year for carving?

30. Do you use any other woods for these purposes? If so, which? And if not why?
31. Do you think the carving activities contribute to the threat of depletion of 'Mpingo' tree? If not what other activities contribute to its depletion?
32. Where do you get the wood for carving?
33. Are you aware of the environmental impacts caused by harvesting of 'Mpingo' for carving activities?
34. Do you have to obtain permit before cutting 'Mpingo' trees?
35. Are you aware of any illegal harvesting of 'Mpingo'? If yes what is the frequency and if no why?
36. What strategies do you have to maintain the 'Mpingo' trees? Mention
37. Do you think deforestation caused by carving activities? Explain

Sustainability

38. When did you start carving activities?
39. For how long have you been using 'Mpingo' for carving activities?
40. And do you expect to teach and invite anybody in your family to conduct carving activities? If yes why and if not why not.
41. Do you easily get the logs for carving?
42. Are you worried about the availability of 'Mpingo'?
43. Are there any difficulties in getting the logs?
44. Do you expect to do this activity for all of your life time? If yes why and if not why not?
45. Do you understand what sustainable development is?
46. Was 'Mpingo' used more in the past, or is it used more now?
47. How do you see the future of the carving activities without re-planting of the tree?
48. Would you like to start a tree plantation for coming generations? Which trees? Why?
49. What is the role of other stakeholders in controlling carving activities? Have they being successful? If yes do you provide any support? If not why?

Ministry of Natural Resources and Tourism

1. What is the major use for 'Mpingo' in Tanzania?
2. Do you think carving activities contributes to the deforestation? To what extent?
3. What do you do to reduce deforestation caused by carving activities.
4. To what extent do the carvers adhere to legal requirements and policies regulating deforestation.
5. What are the challenges/ constraints in controlling deforestation caused by carving activities
6. Do you consider 'Mpingo' rare species that need strategic interventions please explain?
7. Are there any measures in place that protects against the depletion of 'Mpingo' tree in the country?
8. Do you think carving activities contributes to the depletion of 'Mpingo'? If not what other activities contribute to its depletion?
9. What is the role of the ministry in controlling carving activities?
10. Do you consider carving activities sustainable?

11. Do you provide support to any initiatives to protect against depletion of 'Mpingo' tree/deforestation caused by the carving activities?
12. Is there any other information that you consider relevant to this study?

Ministry of Environment and NEMC

1. Do the carving activities contribute to the destruction of environment?
2. What other environmental impacts do carving activities have in general?
3. Do you consider carving activities sustainable?
4. What is the role of the Ministry in controlling carving activities?
5. What is the role of other stakeholders in controlling the depletion of 'Mpingo'? Have they been successful?
6. Do you provide support to any initiatives to protect against depletion of 'Mpingo' tree/deforestation caused by the carving activities?
7. Are there any measures, legal or otherwise to protect 'Mpingo' against depletion in the country?
8. Are there any policies or regulations that control harvesting of 'Mpingo' tree in Tanzania?
9. Do you consider 'Mpingo' trade rare species that needs strategic intervention? please explain?
10. Is there any other information that you consider relevant to this study?

Ministry of trade

1. What is the role of the Ministry in controlling carving industry in Tanzania?
 - Coordination?
 - Marketing?
 - Sustainability?
 - Regulatory? Etc.
2. To what extent is the ministry capable of fulfilling these roles? What are the challenges?
3. What is the role of other stakeholders in controlling carving activities? Have they been successful? Do you provide any support? If not why?
4. Do you consider carving activities sustainable?
5. What do you think can be done to sustain the industry?
6. What is the contribution of carving activities to the economy of the country?
7. Can export markets benefit the carvers?
8. Do you organize expos for the carvers? Explain
9. Do you consider 'Mpingo' trade rare species that need strategic interventions please explain? (measure ministry coordination)
10. What measures have you imposed to protect the carving industry in the country?
11. Is there any other information that you consider relevant to this study?

Suppliers/ dealers in 'Mpingo' trade

1. Approximately how much 'Mpingo' do you sell each year

2. What is the main use of 'Mpingo' by your customers?
3. Where do you supply 'Mpingo'? Locally Nationally Export (where to?)
4. Do you have difficulty in obtaining a reliable supply? If so, what are the main problems (quality, price, quantity)
5. How long have you been supplying 'Mpingo'?
6. Has the supply changed markedly over this period? In particular how have the following changed?
 - Source
 - Quality
 - Amount available
 - Price
 - Other
7. Is there illegal 'Mpingo' harvest?
8. What is the punishment if you get caught?

