

**THE ASSESSMENT OF INTERNATIONAL CONVENTIONS AND
MUNICIPAL LAWS IN RELATION TO THE PROTECTION OF
COASTAL ENVIRONMENT:**

THE CASE OF DAR ES SALAAM TANZANIA

**By
Christopher Elly Nsemwa**

**A Dissertation Submitted in Partial Fulfillment of the Requirement for the Award
of Masters of Laws (International Law) of Mzumbe University
Mzumbe University.**

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CERTIFICATION

We the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled *The assessment of International Conventions and Municipal Laws in relation to the Protection of Coastal Environment; A Case of Dar es Salaam, Tanzania*. In partial fulfillment of the requirements for award of the degree of Master of International Law of Mzumbe University

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I hereby declare that any mistake which may still be found in this work will be mine and I will be fully responsible for it in full.

May God help me.

DEDICATION

This work is dedicated to my Mother Rosemary Shogha, and my Grandmother Alatwisila Nyambo. I know your souls are happy right now, and you both feel proud of me as well. I have proved to you my elders that I can still prosper in academic for the betterment of my family. I wish you could be here by my side and celebrate all together the fruits of investments for Education on me. May your Souls Rest in Eternal Peace, Amen

ABBREVIATIONS AND ACRONYMS

AMCEN	African Ministerial Conference on Environment
Cap	Chapter of the Laws
CBD	Convention on Biological Diversity
CEEST	Centre for Energy, Environment, and Science & Technology
CIEL	Centre for International Environmental Law
CSD	Commission on Sustainable Development
CTE	Committee on Trade and Environment
DDT	Dichloro Diphenyl Trichloroethane
DMI	Dar es Salaam Marine Time Institutes,
DoE	Division of Environment
EC	European Community
Edn	Edition
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
ERB	Environmental Regulatory Body
ESRF	Economic & Social Research Foundation
EU	European Union
EUs	Environmental Units
GEF	Global Environment Facility
GEMS	Global Environment Monitoring System
GHG	Greenhouse Gases
Ibid	Ibidem
I.C.J.	International Court of Justice Reports
IMDG	International Maritime Dangerous Goods
JEAT	Journalists Environmental Association of Tanzania
KTM	Karibu Textile Millis

LRTAP	Convention on Long-Range Trans-boundary Air Pollution
MARPOL	International Convention on the Prevention of Pollution by Ships
NEAP	National Environmental Action Plan
NEP	National Environmental Policy
NCSSD	National Conservation Strategy for Sustainable Development
NGO	Non-Governmental Organization
OAS	Organization of American States
OAU	Organization of African Unity
OECD	Organization of Economic Cooperation and Development
Op cit	In the work Mentioned
P	Page
Para	Paragraph
POCA	Pollution Control Association
POPs	Persistent Organic Pollutants
PP	Pages
PPP	Polluter Pays Principle
REPOA	Research on Poverty Alleviation
TBL	Tanzania Breweries Limited
TBS	Tanzania Bureau of Standards
TESO	Tanzania Environmental Society
TPDF	Tanzania Peoples Defense Forces
TWCS	Tanzania Wildlife Conservation Society
TAWLA	Tanzania Women Lawyers Association
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Program
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe

UNEP	United Nations Environment Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change.
VLCC	Very Large Crude Carriers.
VPO	Vice President's Office
SBC	Serengeti Breweries Company.
WHO	World Health Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization

ABSTRACT

This research deals with the assessment of international instruments and municipal laws present in Tanzania, to determine the extent of their contribution to protection of the coastal zone environment. The rationale behind this study came from the fact that the Constitution of United Republic of Tanzania 1977 (as amended) has not addressed enough the aspect of environment, likewise the Environment Management Act of 2004 has not addressed in precise terms the coastal zone management despite making it an offence for anyone to pollute environment.

The study involved both, the library and field research. The researcher employed two techniques namely purposive and snowball sampling whereby the former type of sampling procedure enabled the researcher to get data from prominent respondents. While the later were applied to few selected experts as well as those with sufficient experience. The targeted population included 2 legal officers from the Office of Vice President, Environmental Division; 2 Officials from The National Environmental Council: 7 Lawyers from various NGOs: 10 Fishermen: and 5 different people:

The work has five chapters and each chapter deals with a specific topic. The first chapter introduces the research and it deals with the background, statement of the problem and literature review among others. The second chapter is conceptual framework, in which some concepts regarding coastal environment have been covered. Chapter three looks into the legal and institutional framework. Findings are under chapter four. The last chapter is about the summary, conclusion and recommendations.

The study shows that there are various causes of destruction of the coastal environment. The notable are poverty, lack of environment education: corruptions, and poor planning on the part of the government. Also the study shows that the present legal regime in Tanzania has not addressed in precise terms the management of the coastal zone environment, therefore the researcher proposes, the establishment of national and international law specifically to address and protect the coastal zone environment.

LIST OF STATUTES

A : International Instruments

Declaration on Environment and Development (Agenda 21): 1992

Coastal Environment of the Eastern African Region: 1985

Compensation of Oil Pollution Damage: 1971

The African Convention on the Conservation of Nature and Natural Resources: 1968

The Bamako Convention on Ban of the Import into Africa and the Control of Trans-boundary Movements of Hazardous Wastes within Africa: 1998

The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal: 1989

The Convention on Biological Diversity: 1992

The Convention on the Continental Shelf: 1958

The Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region; 1996

The Convention Concerning the Protection of World Cultural and Natural Heritage: 1972

The Convention on Long-range Trans-boundary Air Pollution: 1979

The Convention on the Territorial Sea and the Contiguous Zone: 1958

The International Convention on Civil Liability for Oil Pollution Damage: 1969

The International Convention for the Prevention of Pollution of the sea by Oil: 1962

The International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND) 1996

The Stockholm Convention on Persistent Organic Pollutants: 2001

The United Nations Convention on the Law of the Sea: 1982.

The United Nations Convention to Combat Desertification: 1996

B: Domestic Laws

The Constitution of United Republic of Tanzania: 1977 (as amended from time to time)

The Local Government (Urban Authorities) Act, 1982.

The National Environment Management Council Act, 1983.

The Land Use Planning Commission Act, 1984.

The Plant Protection Act, 1997.

The Surface and Marine Transport Regulatory Authority Act, 2001

The Merchant Shipping Act 21, 2003.

The Industrial and Consumer Chemicals (Management and Control) Act, 2003.

The Environment Management Act, No 20 of 2004.

The Water Resources Management Act, 2009.

The Mining Act, No. 14, 2010;

The Environmental Management (Soil Quality Standards) Regulations, 2007

Environmental Management (Hazardous Waste Control) Regulations, 2009

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CHAPTER ONE

GENERAL INTRODUCTION

1.1 Introduction

The coastal areas are important part of Tanzania and to any other coastal state, these zones are important because a majority of the world's population inhabit in coastal zones. Coastal zones are continually changing because of the dynamic interaction between the oceans and the land. Waves and winds along the coast are both eroding rock and depositing sediment on a continuous basis, and rates of erosion and deposition vary considerably from day to day along such zones.¹

The coastal zone contains highly productive habitats, which are important for human habitations, development and the livelihood of local populations. More than half of the world population lives at least 60 kilometers from a coast, a proportion that might rise up to three quarter in 2020. The coastlines contain essential resources for local communities and populations therefore they are more crowded by poor people especially in developing countries.²

The crowding of the coastal areas increased pollution and destruction of the coast this led to an attention for water pollution in 1980s. The oil spill of the *Exxon Valdez* showed many around the world just how horrible the effects of water pollution could be. Every year, 14 billion pounds of sewage, sludge, and garbage are dumped into the world's oceans. 19 trillion gallons of waste also enter the water annually.³

The problem of ocean pollution affects every nation bordering the sea or close to the sea around the world. This is especially true because water is able to transport pollution

¹ Keller,&Edward A.(1985), Environmental Geology, 4th Ed. Charles E. Merrill Publishing Co., 480 pp

²Ak'habuhaya, J.L. & M. Lodenius. Pesticides in Tanzania. Department of Environmental Conservation. University of Helsinki. Pub!. No. 10. 135 pp.

³ [Http://library.thinkquest.org.26026/environmentalproblems-from/Exxon Valdes in 1989 march 24th](http://library.thinkquest.org.26026/environmentalproblems-from/Exxon%20Valdes%20in%201989%20march%2024th). Where it hit the Bligh reef near Alaska opening a large hole its hull, the ship was full of oil at the time. Carrying a total of 1.2 millions of barrels (190 millions of litres).at5

from one location to another. For many years, chemicals were dumped into bodies of water without concern. While many countries have tried to ban such behavior, it is still going on.

Due to the facts that the world has industrialized and its population has grown, the problem of water pollution has intensified. The simple fact that there are millions of people living along coastlines and near rivers means that these bodies of water are likely to be contaminated by pollution resulting from domestic or industrial processing. Thus it is hard now to know, what the oceans will look like in the future, or the clear understanding as to how pollution will damage the environment.

The coastal areas are an important part of Tanzanian identity. From earliest times, when transportation depended from water, to and from the sea has been the home to the significant part of the population. The earliest industries were centered on fisheries and shipbuilding, and many early agricultural operations relied on draining coastal marshes. Today, the coastal areas continue to provide good places to live and work for many Tanzanians, and an increasing population of outsiders who came as tourists. Coastal lands and waterways support fisheries and tourism and continue to play a part in transportation, all dependent on the safety of natural habitat and ecosystems which are unique and present into the coasts.

A number of factors, from human activity to changes in global climate have placed stresses on coastal areas, creating greater risk to public safety and structural damage, affecting important agricultural lands, and threatening the bio-diversity of plant and wildlife which have sustained coastal regions for centuries. The present challenge is to ensure future viability of coastal areas in terms of economic and community growth through advances in environmental protection.

That is often particularly acute within developing countries where demographic trends, coupled with requirements of economic growth, suggest that pressures on coastal areas

and their associated resources will continue to increase.⁴ Therefore, appropriate management and use of coastal zones is needed both regionally and globally.

1.2 Background to the problem.

Environmental laws have come out of age, its development has been a collection of rules that developed sporadically and its history goes deep to human civilization. Few examples can be seen from the early Egypt where the protection of Nile River was made part of faith and whoever polluted the river it was believed could not go to heaven.⁵ The Romans were not silent because they prohibited the discharge of waste into other's property and passed a legislation to protect the city's supply of clean water for drinking and bathing.⁶ In Tanzania as the case study from the early ages it was known that, it was traditionally prohibited and it was a taboo for any one to pollute or damage a source of water, like a River, or a Well, and thus any one caught to pollute or damage it, was isolated and denied the use of such water source for three years, or pay fine of about 3 to 5 heads of castles.⁷ This proves how important it was on the aspect of environmental protection.

These early efforts were centered on a specific problem and in a specific country; however the international community has for several decades shown concern for the ecological balance and environmental protection globally.⁸ However internationally the increased sophistication in appreciating the risk to the earth's environment; the irreversible damage which may be caused by human activity has resulted in a conscious

⁴ Tsontos et al. (1999) The Gulf of Maine Biogeographical Information System Project: developing a spatial data management framework in support of OBIS pp 233-4). Available online at <http://www.sciencedirect.com/science/journal/03991784/21> retrieved 29th July 2011

⁵ <http://www.sis.gov.eg/VR/environment/5html> accessed on 30th July 2011

⁶ The New Encyclopedia Britannica Volume 18, 15th Edition, 2007 Chicago U.S.A p 488.

⁷ Solomony Ngwesuka (1986) Protect Natural resources for it to protect you. Usangu basin, Chimala/Mbeya at page 34.

⁸ Dr Tripath, C.S (2005), Environmental law, 2nd Ed, Sri Maruti Printers, Motilal Nehm Road, Allahabad p 425

effort, both by governments acting collectively but also by non-governmental organizations, to invoke legal protection of the environment.⁹

For the first time an effort was carried at a regional level in 1902 where the interest was on the protection of birds which were useful for agriculture. The first convention to this effort was concluded under the name Convention for the protection of birds useful for agriculture in Paris. This convention was purposefully meant for Africa. Another effort in regards to the protection of environment was concluded between states was the interstate treaty which was signed between the United States of America and the Great Britain¹⁰ later joined by Japan and Russia¹¹

Much was done in 1930's where there was a London Convention Relative to the Preservation of Flora and Fauna in their Natural State. The Convention provided for the Creation of National Parks, (this marked the foundation of the creation of national parks which exist until today in many countries). It also provided for measures to regulate the export of hunting trophies and banned certain methods of hunting.¹² Another convention adopted in the same year was The Convention on Nature Protection of Wildlife Preservation in the Western Hemisphere. Having known that water was shared among States and pollution of the same will affect all the States when this water passes in their territory some treaties to protect a certain river or water source were entered among States, one of these treaties was the Convention on the Canalisation of the Mosal in Luxembourg 1956.¹³

Environmental Law gained a momentum after the arbitral award in *Trail Smelter case*¹⁴ where it was stated that 'no state has the right to use its territory or permit it to be used

⁹ See generally Brownlie, Natural resources Journal 13 (1973) 179; Teclaff and Utton (eds) international environmental law (1974):

¹⁰ The Treaty Relating to the Preservation and Protection of Fur Seal (Washington DC February 11, 1911)

¹¹ Washington DC February 9 1957

¹² Kiss A and Shelton D (2004), International Environmental Law 3rd Ed Transnational Publishers USA at p 32.

¹³ Ibid at p 33

¹⁴[1941] 3 U.N.R.I.A.A 1905

to cause serious damage by emissions to the territory of another State or to the property of persons found there.’ In this award the Tribunal created and imposed a duty to States that they make sure that each takes necessary steps to protect another State from pollution. In addition States are obliged to use their territories in consideration of the rights of other States.¹⁵

The increase in conscience about environmental problems in 1968 made the Council of Europe, the United Nations and the Organisation of African Unity to take major steps, for example the Council of Europe adopted a Declaration on Air pollution and the European water Charter of May 1968 and the European Regional Environmental Treaty. On the side of Africa some efforts included signing of the African Convention on the Conservation of Nature and Natural Resources, which replaced the former London Convention. This new convention is more comprehensive than the former one concluded in 1902.¹⁶

At this time environmental Law was based on a particular matter it aimed at controlling, however the marine environment was not excluded on it. This is because the aim at first was to control pollution which as of the time was caused mainly by oil spillage. So The London Convention for the Prevention of the Pollution by Ships was signed. The same regime witnessed other conventions in 1958 in the name of The Convention on the High Seas, The Convention on Territorial Water, The Convention on the Continental Shelf and the Convention on Fishing and Conservation of the Living Resources of the High Seas. Each Convention dealt with a specific issue. For example there was prevention on pollution by oil or pipelines and by radioactive waste and damage to the marine environment caused by drilling operations on the continental shelf.¹⁷

¹⁵ Corfu Channel’s Case ICJ Rep[1949] 4

¹⁶ Supra note 11 at pp 34-35.

¹⁷ Convention on the High Sea 1958 Art 24-25, and Convention on the Continental Shelf 1958 Art 5(7)

In the aspect of conservation in Tanzania, especially on coastal zone began in the early colonial era; however the notable effort and policies were ascertained in many parts of Tanganyika after independence in 1961 that was supported by the permission by the Tanganyika Government to allow the colonial structure and policies used by British colonial government to protect coastal environment and other natural resources.¹⁸ It was from this aspect that many European Conservation Organizations¹⁹ took part on conserving the coastal zones and other identified parts of environment and wild life zones in particular, from there these organizations kept close eyes to the country's coastal zones.²⁰ Most of the duties of these organizations were to give guidelines to the indigenous as well as government officials on how to preserve environment.

The importance of conserving the coastal zone and wild lives was seen to be important to the economy of Tanzania since the time of independence as was once said by the first Tanzania President the late JK Nyerere. That the primary purpose of conservation in Tanzania after decolonization was not to conserve the environment for ordinary Africans, who had long made their livelihoods on those lands, rather, it was to conserve them for wealthy tourists with a “strange urge” to see Tanzania's impressive wildlife, and who would in turn bring a great deal of money into the Tanzanian economy,²¹ thus it was from this foundation that the new era of conservation began.

On 1980's where many institutions including International Monetary Fund (IMF) and the World Bank (WB) plus other Non Governmental Organizations NGOs began to

¹⁸ Minwary M. Y (2008) Politics of Participatory Wildlife Management in Enduimet WMA, Tanzania 8 at page 595 Available online at http://www.umb.no/statisk/noragric/publications/master/2009_maya_yulistiani_minwary.pdf 29th July 2011

¹⁹ These organizations were the WWF, and International Union for Conservation of Nature and Natural Resources (IUCN)

²⁰ Neuman 1995 at page 365.

²¹ Walley 2004: 174, The Speech of JK Nyerere issued on Arusha Festival in 1961 when he said “I personally am not very interested in animals. I do not want to spend my holidays watching crocodiles. Nevertheless, I am entirely in favor of their survival. I believe that after diamonds and sisal, wild animals will provide Tanganyika with its greatest source of income. Thousands of Americans and Europeans have the strange urge to see these animals.”

promote and implement projects that aimed to protect environment natural resources and its management (NRM).

Hence Tanzania started enacting various laws, to protect environment in general.²² This aimed to support international effort to preserve environment and its natural resources of what is witnessed today.

1.3 Statement of the problem

The constitution of the United Republic of Tanzania has some provisions which address the issue of environment in general terms. The Constitution allows the people to have an access towards environmental information as provided under article 18(d).²³ It also gives the duty to individuals to protect natural resources as provided under Article 27(1).²⁴ Despite having some provisions in relation to the environment the constitution has not addressed the issue of coastal management in precise terms. It has not provided for a right to a clean environment; however this right can be read together with section 4 of EMA.

The management of the environment is under EMA which clearly makes it an offence to pollute environment,²⁵ still its enforcement has been a notable weakness. Despite the facts that this Act provides for the detailed measures for the protection of ecological processes, the sustainable utilization of Ecosystems and for the environmental protection as a whole, but it is not an effective Act. Perhaps this is because there are no regulations made to implement it. The practice shows that there is a lack of capacity to enforce environmental laws and lack of working tools which makes the environment protection

²² The Local Government (Urban Authorities) Act of 1982: The National Environment Management Council Act, 1983: The Land Use Planning Commission Act of 1984: The Plant Protection Act, 1997: The Environmental Management Act, 20 of 2004: The Water Resources Management Act, 2009.

²³ The constitution of United Republic of Tanzania 1977 as amended from time to time.

²⁴ Ibid

²⁵ Under section 109.(1) Any person who knowingly puts or permits to be put or to fall or to be carried into any stream, so as either singly or in combination with other similar acts of the same nature or interfere with its due flow or pollute its waters, or puts solid refuse of any manufactory or manufacturing process, or puts any rubbish or any other waste or any putrid solid matter into such stream, commits an offence. See also section 5, and Section 6. Of the Act.

to suffer the damage to the great extent, it result into dirty, unsafe, and unhealthy environment. Perhaps this will continue in many years to come if no Regulations are made to implement the Act,²⁶

This problem seems to be so serious in coastal areas than in countryside because it is accompanied by various urban centers, close to large polluting industries, ie Processing & manufacturing industries, rubber industries, etc, but also the presence of pesticides industries which has most adverse impact to living organism in sea where they actually dump their end products. While other areas which are found in remote places has little, or no pollution at all because of lack or no human activities.²⁷

The knowledge of extent of environmental pollution in most of the developing countries is very limited. Despite the fact that Tanzania has few industries or industrial centers, Dar es Salaam is the most industrial area in the country, and also this area is more densely populated since 1980s, that being the case the environmental pollution might have direct influence on the public health. It is the view of the researcher that this problem needs more research to be addressed of which will find out the solution to it.

It is argued by many writers that International law is a soft law.²⁸ This is because its sanctions depend on the willingness of the members to be bound by that treaties or conventions.²⁹ However international environmental Law uses principles which are easily enforced at both national and international levels.³⁰

²⁶ Mkuula,S Pollution of wetlands in Tanzania, National Environment Management Council

²⁷ Mkuula, S.S. & F.M.T.(2010) Mpendazoe. Disposal of Industrial wastes in Tanzania. Proceeding of the first workshop in preparation of a National Conservation Strategy for Tanzania. 12-17 November, Dodoma. NEMC, SIDA. pp.126-146.

²⁸ Where principles or guidelines are not legally binding but may still shape behavior. Principles of this kind can develop from international conferences, or be formulated in non-binding agreements. Soft law in this sense can articulate principles that may subsequently develop into binding customary law. An example of such an agreement is Agenda 21, an 800 page action plan relating to the environment and development, which was formulated at the 1992 Rio UN Conference on Environment and Development. Soft law in this sense can articulate principles that may subsequently develop into binding customary law;

²⁹ Vienna Convention on the law of treaties. 1969

³⁰ Alexandre Kiss and D. Shelton (1925) International Environmental Law 3rd ed at page 664.

The management of the Sea has called the attention of the international community in the recent years, what has to be noted here is that, laws are influenced by the development attained by states, the geographical location and the policies of the time as RR Churchill and Lowe says.³¹ The notable effort done at international level in regards to the management of the sea in general can be seen in 1930's where three conventions were adopted. These conventions are the Territorial Sea Conventions 1958, the convention of the High Sea 1958, and the Continental Shelf convention, 1958. These treaties or agreement are clearest expression of legal understanding made by states. They are binding only upon the states parties to them, and the same treaties provide a clear and conclusive statement of the rights of the states parties to it, in relations with each other.

These conventions are 1958; convention on the Territorial Sea, 1958, Convention on the high Seas 1958 and the Convention on the Continental Shelf 1958, all these conventions did not address in precise terms the protection of Coastal environment. That was because these Conventions were mainly concerned with the maritime zones.

The other Conventions on the preservation of the pollution from ships of 1973, seems to have addressed the issue of pollution in the oceans however it has not addressed the Coastal environment. The other effort of the international level in relation to the management of the Sea is the Law of the Sea Convention of 1982 this Convention provides a framework in which the coast can be protected and managed.

The Coast has played various great roles since time in memorial, as an important point in water has been used as recreational, as an important point in water ways and also as a defensive area against invasion.

These uses of the coastal have resulted in the destruction of it and therefore it has brought the attention of the researcher in assessing the International Conventions and

³¹ Laws whether international or municipal, do not grow in isolation, but influence and are molded by the politics, economics and geography of the real world to which they apply at p 2.

Municipal Laws in relation to the protection of Coastal zone environment. It is evident that in several parts of the world, the rapid population has increased pollution and degradation of the Coastal environment.³² Due to the discharges of wastes in the Sea, construction of recreational facilities, consequently Coastal States are proclaiming their interests in an integrated management and a sustainable valorization of the Coastal zones and Marine environment found within their national jurisdiction.³³

The management of the coastal environment at the regional level can be seen from Africa. The continent has tried to make sure that the coast is protected. To that effect the continent has enacted a convention that bans the importation into Africa hazardous waste. It is called the Bamako Convention on the Ban of the Hazardous Waste in Africa. The Convention prevents and prohibit the importation of hazardous waste however it does not specifically address the coastal zone environment.

At a sub-regional level there have been several attempts to make sure the coastal environment is protected from unprecedented human activities. For example in East Africa the member states have managed to enact a convention in regards to the coastal environment. The convention is called the Convention on the Coastal Environment Protection in East in Africa, 1996.³⁴ This convention is very clear regarding pollution done at the coastal areas. Reading from Article 5 to Article 12 the signatories are duty bound to make sure the coastal is managed properly. Therefore this convention provides a best framework upon which the members can adhere to it, or domesticate the same.

³² Recomap Report on Regional Programme for the Sustainable Management of the Coastal Zones of the Indian Ocean Countries, no 12: special icm issue April -Jun 2010

³³ RECOMAP Report on Regional Programme for the Sustainable Management of the Coastal Zones of the Indian Ocean Countries, no 12: special icm issue April -Jun 2010.

³⁴The Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (otherwise known as the Nairobi Convention) and its two Protocols, 1985 and have been in force since 30 May 1996. South Africa, which was not a signatory in 1985, acceded to the Nairobi Convention and associated Protocols on 16 May 2003. Thus the Nairobi Convention has now achieved 100% ratification, a rare achievement for a regional/international convention. The Convention offers a legal framework and coordinates the efforts of the countries of the region to plan and develop programmes that strengthen their capacity to protect, manage and develop their coastal and marine environment sustainably.

Tanzania is a member to both International,³⁵ and Regional arrangement.³⁶ It has been benefiting from the membership and therefore it carries obligation arising there from. However for these conventions to be enforceable must be domesticated within the municipal laws as they are not self executing. They often require domestication in addition to signature, ratification by the parties before they enter into force. The same position was stated by Judge Augustino Ramadhani in *Transport Equipment Ltd and Reginald John Nolan v Devran P. Valambia*.³⁷ Therefore Tanzania by ratifying the international Conventions,³⁸ it has signified its intention to be bound by the conventions. However the legal framework does not reflect this commitment. An overview of the Tanzania laws done below shows how the laws do not address the management of coast in regards to pollution, or its management.

Despite the efforts deployed at international levels, regional, sub-regional, national especially in the field of laws and policies, it seems that current strategies for the

³⁵ The Convention on the Territorial Sea and the Contiguous Zone 1958; The Convention on the Continental Shelf 1958; The United Nations Convention on the Law of the Sea 1982. The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal 1980. The Convention on Long-range Trans-boundary Air Pollution 1979; The Rio Declaration on Environment and Development (Agenda 21), 1992; The Stockholm Convention on Persistent Organic Pollutants; The Convention on Biological Diversity,; The United Nations Convention to Combat Desertification; The United Nations Framework Convention on Climate Change; The UN Convention on Long-range Trans-boundary Air Pollution.1979.

³⁶ The Bamako Convention on Ban of the Import into Africa and the Control of Trans-boundary Movements of Hazardous Wastes within Africa; The Convention for the Protection, Management and Development of the Marine and the Coastal Environment of the Eastern African Region.

³⁷ Treaties are not self-executing; they cannot operate by themselves within our country, but require the passing of an enabling statute after they have been domesticated. However, ratification is in many States the privilege of the legislature. Jurisdiction is distributed between the legislative and the executive branch, according to the importance of the instrument. The executive branch may create obligations by signing and ratifying, but only the legislature can decide how the obligation borne with the treaty is to be performed

³⁸ The Convention on the Territorial Sea and the Contiguous Zone 1958; The Convention on the Continental Shelf 1958; The United Nations Convention on the Law of the Sea 1982. The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal 1980. The Convention on Long-range Trans-boundary Air Pollution 1979; The Rio Declaration on Environment and Development (Agenda 21), 1992; The Stockholm Convention on Persistent Organic Pollutants; The Convention on Biological Diversity,; The United Nations Convention to Combat Desertification; The United Nations Framework Convention on Climate Change; The UN Convention on Long-range Trans-boundary Air Pollution.1979.

protection and management of coastal zone environment do not always allow a sustainable development to be reached to its required standard.³⁹

The present legal framework, from international to the Municipal level, does not give a clear picture being in practice to protect coastal environments. But rather these efforts are seen to be in writings and left to be locked up. While pollution and deterioration of the coastal zone environment still grow up to the maximum level. With these problems it is the intention of the researcher to find out what will be the solutions to overcome the same. In order to have the safe, clean, and healthy kind of coastal zone environment.

1.4 Hypothesis

This research was guided by the following hypothesis

- (i) That, both the international conventions and municipal laws have not properly protected the coastal environment
- (ii) That, there is a need to have an Act which will regulate coastal environment in Tanzania.
- (iii) That, the institutional framework for the management of environment is weak and thus inefficient.
- (iv) That, the environmental principles have not been utilized enough to protect coastal environment.

1.5 Objectives of the research:

- i. To assess the legal mechanism at both international and national levels through which the coastal environment is managed.
- ii. To make an examination on institutional problems that affects the management of coastal environmental.
- iii. To make recommendations on what have to be done in order to protect the Coastal environment.

³⁹ Recomap Report on Regional Programme for the Sustainable Management of the Coastal Zones of the Indian Ocean Countries, no 12: special icm issue April -Jun 2010

1.6 Significance of the study:

This work as it has been stated, evaluates the existing conventions to which Tanzania is a part, and its municipal laws, on its capacity to protect coastal zone environment. It looks at whether or not there has been state or government effort, enough to warrant fully protection of this kind of environment.

Furthermore it touches at state violations of the present laws and regulation that protect environmental worthiness. It is therefore an invitation to other human rights advocates, local and international lawyers, researchers and Non-governmental organizations to contribute to the development of a fuller identification of actual potential violations of environmental problems. On the other hand, to advocate towards formulation of policies and laws through which coastal zone environment can be safe and therefore utilized sustainably.

To achieve this goal this work aims at acting as a tool towards assessing the government performance. Since it is through understanding the most significant violations, it will be made possible to develop the standard that Tanzania aims at attaining towards complying with international environmental program and other conventions that deal with environmental problems, for this one coastal zone environment.

Moreover the research is expected to add utility to Non Governmental Organizations (NGOs) the Government and public at large to be aware of the necessity of having clean, safe and healthy environment, by changing the existing environmental regime towards acting positively on over role protection of environments in general.

This research generally is expected to bring a paramount importance as basis for other scholars or researcher's inputs as far as coastal zone environmental protection is concerned.

1.7 Literature review

Bryceson, I., (1983),⁴⁰ Explain that In Dar es Salaam, domestic waste is the most serious source of pollution. The waste generated by 15% of the city residents who are connected to the sewer system is discharged into the sea untreated. As a result, the coastal waters, especially in vicinity of the Dar es Salaam harbor, are heavily polluted. Discharge of untreated sewage in Dar es Salaam has resulted in high fiscal and total coli form levels in the same areas. The situation is made worse by a broken sewer pipe which discharges untreated sewage on sandy-mud flats near the harbor which is said to threaten invertebrates and fish. the chlorinated organic compounds are at alarming levels in the harbour areas as are heavy metals.

Lack of specific laws to govern waste management in the harbour areas, has contributed to the sufferance from oil pollution, from the refinery at Kigamboni, and industrial wastes from Keko, Chang'ombe, Kurasini, Mtoni and Temeke. These discharge heavy metal, pesticide, organic, and paint wastes into the nearby area. However the writer has not given the area which needs a fundamental legal framework to insure coastal environment protection thus is the intention of the researcher to make a notable research on the extent of which the law should provide for environmental protection Tanzania specifically on coastal zones.

The Walioba Commission for Corruption (1996).⁴¹ Where the commission said the essence of failure of the Environmental Impact Assessment (EIA) has been contributed by the huge corruption practices of public servant, (Public Leader) to favor their friends who are foreign investors for personal benefit. But also it has been a problem to hold them liable due to the weakness in the Tanzanian environmental laws and regulations.

On the other hand the commission has not addressed the poverty as the most sources of human being depending solely on environment as source of income, This attracts the

⁴⁰ In his article, Pollution of Dar es Salaam Coastal environments by industrial and domestic effluents.

⁴¹ Tanzania, U.R. (1996) Presidential Commission of Inquiry Against Corruption: Report on the Commission on Corruption, Vols. 1 & 2.

researcher to find out the area of weakness in of which guarantees the loopholes to the corrupts public servant not to be responsible for environmental degradation in coastal areas of Tanzania.

Kenyuan Zou (1998).⁴² The author of this article is of the view that, the force behind the presence of right of innocent passage for warships, or ships carrying hazardous or noxious substance, is from big maritime powers, which the rate of having dangerous pollutants from this warships, fuel ships, or big industries is highly than from developing countries. That is the reason the developing countries did not accept the insertion of the right of innocent passage for warship, or ships carrying hazardous substances, within the law of the sea convention III, putting forward reason that those ships are endangering security and coastal environment of their states.

However the same failed as result, instead the convention provides that, Subject to this Convention, ships of all States, whether coastal or land-locked, enjoy the right of innocent passage through the territorial sea.⁴³ Now the statement “all ship” as applied in the convention includes warship and ships carrying dangerous substances.

However the author did not analyze in precise on what could be done by developing state in order to protect their coastal environment after the Law of the sea convention failed to protect, by allowing right of innocent passage, to warship and ships carrying dangerous substance in the coast. It is the intention of the researcher to fill the necessary steps to be included within the Law of the sea convention with the view to protect the coastal environment.

Alexandre K. & D. Shelton, (2003).⁴⁴ Contend that, as a whole, international instruments concerning coast environmental pollution distinguish four categories of

⁴² Zoue Keyuan (2009) Innocent Passage of Warships, in Ocean Development & International Law: The Chinese Doctrine and Practice, East Asian Institute National University of Singapore.

⁴³ Article 17 of the convention on the law of the sea 1982.

⁴⁴ Alexandre Kiss and D. Shelton (2003) International Environmental Law 3rd ed at page 664.

pollution: vessel-based pollution coming from normal utilization of the oceans; pollution arising from exploration or exploitation of the sea bed; land-based pollution whether coming from direct discharges into the ocean or carried into it by rivers; and finally deliberate and large, mostly industrial, dumping of wastes. Pollution transported by air may be added, including that derived from incineration of wastes at sea or along the coast.

The authors also have discovered that Legal norms must be flexible to deal with this diversity of situations. As International legal rules affirming state responsibility for environmental damage caused by pollution are a beginning, but they lack concrete standards and means of implementation. Likewise, the authors suggested that compensation must be assured by other means, primarily through internal legal proceedings, for damage caused by pollution of the marine or coastal environment. On the other hand the International environmental law places its emphasis on prevention. Numerous standards prohibit certain deliberate or intentional acts or strictly regulate them.

To minimize accidental environmental harm, other legal principles must be applied, such as strict rules governing the construction of tankers, navigation, and the training of crews. It is clear that marine environmental pollution due to accidents can only be combated through international cooperation. In this regard, a 1969 Convention permits intervention on foreign-flag vessels on the high seas in case of accidents that involve or threaten marine environmental pollution. Part of the task of international law is to further develop international cooperation.

However these authors have put more emphasis on the marine management and very little on Coastal management, most of the discussion is based on marine environment and the likely measures to be taken to overcome its problems. But they haven't given enough weight on how the present international instruments can protect or assist the

management of coastal environment as such or even the measures thus it is the intention of the researcher to fill the gap on this.

Brownlie Ian & Sands (2003).⁴⁵ Propound that, in protecting coastal environment, the practice of states and the literatures provide support for a number of emergent, but still evolving, legal principles. Probably the best known of these is the precautionary principles. Although ‘there is no uniform understanding of the meaning of precautionary principle, among the state and other members of the international community the principles has widely used in international environmental law, perhaps more than in any other field of international law.’⁴⁶

However these two authors failed to give the weak point on the application of this principle, as it is seems to be hampered by both lack of political will, as well as the wide range of interpretation placed on it. One study placed 14 different formulations of the named principle in treaties and Non-treaty declarations.⁴⁷ Thus it is the researchers’ intention to look into the application of legal principles in the management of the coastal environment such principles are the Precautionary Principle and polluter pay principle of which will fit the protection of Tanzanian coastal zone environment.

World Health Organization (2007).⁴⁸ WHO observed that over the next thirty years, most of the world’s population growth will occur in cities and towns of poor or developing countries, the region will see an absolute increase of nearly a billion of people over the next three decades growth concentrated mostly in urban areas. In Africa, the urbanization process also is occupying a space. For example, in the United Republic of Tanzania, the population of Dar es Salaam is doubling every 12 years.

⁴⁵ Gwenaële. R (2009) *The International Tribunal for the Law of the Sea: A Forum for the Development of Principles of International Environmental Law* 6th Edition,

⁴⁶ Alexandre Kiss and D. Shelton (2003) *International Environmental Law* 3rd ed at page 674.

⁴⁷ Kenneth R. at al (2000), "Science and the Precautionary Principle", *Science* 288 (5468): 979–981.;

⁴⁸ Under its programme “[The Health and Environment Linkages Initiatives (HELI)]” report of 2007.

Rapid, unplanned and unsustainable patterns of urban development are making developing cities focal points for many emerging environment and health hazards especially on coastal areas. As urban populations grow, the quality of the urban environment will play an increasingly important role in public health with respect to issues ranging from solid waste disposal, provision of safe water and sanitation, and injury prevention, to the interface between urban poverty, environment and health.

However the WHO report failed to give out the weakness or otherwise of the legal framework on the whole process of family planning, which is likely to reduce or remove of overpopulation on coastal areas, of which is a notable method to combat environmental degradation. Since most people on these areas are notably poor who depend sorely on environmental for survival.

Mann I, (2009).⁴⁹ Expresses the importance of polluter pays principles that as principle of environmental law, has found disagreement as such. But it is prudent and wise to use the paid pollution fine from the polluter into the renovation of the affected part of environment. From this issue the author finds it necessary that environmental problems, such as that of pollution, can not be addressed in isolation by individual state as one but rather it should be dealt by international Organizations, on one hand while the international law on the other, should provide for an effective mechanism joint approaches that deal with national and regional element of environmental problem at the same time.

However the author has not addressed the need to have a specific law to govern the utilization of the fine acquired from pollution, which had been another problem, that despite the payment being made by the polluters, there has been a problem of re-allocation of that money into other problems or even misuse by people entrusted. Thus it is the intention of this research to address on how this fine paid by polluters of environment should be returned into solutions of environmental problems.

⁴⁹“A comparative study of the polluter pays principle and its International Normative Effect On Pollutive Processes”. British Virgin Islands.

Stratton Jane (2009).⁵⁰ Is of the view that, dumping of waste resulted from land based activities, isn't the discretion of person, organization, or vessel carrying such waste, but rather is the duty of the state in which the waste is loaded, or the flag state of the vessel in which the waste is carried.⁵¹ He went on to say the wastes from land based activities are categorized into three: those which can not be dumped in any circumstances, (Radio Active Wastes), those which can be dumped by special permits, and those which can be dumped with general permits.

However the author didn't see the problem of inequality between the poor or developing and the developed countries in the question of management and dumping of waste. What can be seen in poor countries especially African countries is the problem of having corrupt government, which does work within their ambit of the laid down duties.⁵²

The author in one hand didn't touch the question of corruption as the source of failure on most African government to control the dumping of waste from land based activities. While in the other he didn't touch on the problem of poverty and lack enforcement to the provisions of instrument which are in place to govern the management of coastal zone environment.

Thus is the intention of the researcher to explore and find out what are the main points to facilitate the issue of corruption poverty and lack of enforcement to deter the problems of the deterioration of coastal zone environment in most of developing countries, Tanzania being inclusive.

⁵⁰ International Law, Legal Information Access Centre, 2nd edition, Sydney.

⁵¹ See also The Convention on the Prevention of Maritime Pollution by Dumping of Wastes and Other Matter 1972

⁵²Mwapachu (1995) Problems of Urban Authorities. He mentioned that Corruption, Poor quality of Councilors and Citizen Apathy as major problems with Urban Authorities failure to act as required by law and procedures of public offices.

Lawyers Environment Action Team, (LEAT) (2011).⁵³ Explains that environmental impact assessment, as an environmental management tool is a recent phenomenon in Tanzania's environmental protection regime. Likewise, the development of the legal regime in respect of EIA is still in its early stages and evolving. It may, therefore, be too early to make a fair judgment of the laws given the relatively short experience that we, as a country, have had on this subject.

However the Report doesn't give the way forward on how Tanzania should focus on either of the two; one being how to make the EIA most effective to assist environmental protection against foreign investors who seems not to care the adverse impact to coastal environment, and, secondly the report has failed to give the extent of which Tanzania lacks experience on applying present laws to safeguard and protect the coastal zone environment. It is from this gaps that the researcher aims to fill in by finding out the relevant solution.

1.8 Research design and methodology:

This part entails the framework in which the study was carried out. It aims at describing the methods employed in collection of data. But also describe the sample size and sampling procedure, in other hands it explains the source of data, normally this includes primary and secondary together with data analysis. The study involves both library research and field research.

1.8.1 Sample size and sampling procedure

The so called sampling is a process of obtaining information about an entire population by examining only a part of the total population and not the entire of it.⁵⁴ The researcher employed both types of sampling in this study. Namely purposive, and snowball sampling, the two types of sampling procedure are non-probability sampling techniques. On the other hand, the former technique has been preferred to allow the researcher to get

⁵³ LEAT Report (2011) Environmental Impact Assessment of Foreign Investment Project, A Study in the Law, Policy and Governmental Decision-making in Tanzania.

⁵⁴ Ibid p.152

data from prominent respondents. Thus by employing this kind of technique the decision regarding the element, to be included or not in the sample was on the discretion of the researcher.⁵⁵

This is due to the fact that only prominent people that the researcher believed that they possess the relevant experience those who have been either affected or do affect the area of research, and hence they seemed to be able to deliver the expected information of which formed data of the sample. Although this technique looks biased to some people on the whole population size, still it is the cheapest one for sample selection.⁵⁶

The later technique was adapted because of the nature of the study in that few people are knowledgeable in the field under investigation. Therefore the few selected experts as well as those with sufficient experience identified others who had the required information.⁵⁷

1.8.2 Sample size

Targeted population included 2 legal officers from the office of Vice President Environmental Division, (VPO). The National Environmental Management Council, (NEMC). But also seven (7) Lawyers from various NGOs 10 fishermen, 5 different people, 2 officials and international Lawyer from United Nations Environmental Programme, (UNEP). 2 officials from Tanzania Harbor Authority (THA). 4 students and lecturer respectively from Dar es Salaam Marine Time Institutes, (DMI)

1.8.3 Sources of data:

On the aspect of data, both primary and secondary sources of data were employed in this study. Primary data was obtained directly from the respondents during the field work. Data from secondary source were obtained from law libraries of Mzumbe University, University of Dar es Salaam, school of Law of the University of Dar es salaam (formerly

⁵⁵ Adam, J., Kamuzora, F., (2008), Research Methods for Business and Social Studies, Mzumbe Book Project, Morogoro, Tanzania, at P.138

⁵⁶ Ibid

⁵⁷ Ibid, p.140

faculty of law) and the main library, High Court and Court of Appeal in Dar es Salaam. These secondary data included both published and unpublished materials.

1.8.4 Methods of data collection:

The researcher collected data by the following major means, interview, and questionnaires, this is in primary data collection, and documentary review during secondary data collection.

1.8.4.1 Primary data:

The researcher interviewed as well issued questionnaire, to various public officials from these offices, namely The Vice President Office (Environmental Division) VPO. National Environmental Management Council, (NEMC) and Lawyers Environmental Action Team (LEAT) and the United Nations Environmental Office (UNEP).

1.8.4.2 Interview:

This method of data collection involved unstructured interview which does not follow a system of predetermined questions, as well as standardized techniques of recording information.⁵⁸ Such circumstances call for much greater freedom of the interviewer's task in case of need, supplementary questions or omit certain questions if the situation so requires. The researcher found this method more convenient compared to the other (structured interview) because due to novelty of the topic variation of information is most likely. This cannot be achieved when using structured or semi structured interview.⁵⁹

1.8.4.1.1 Questionnaire:

The researcher personally delivered the questionnaires to potential respondents with a request to fill them at their convenient time. And thereafter the researcher recollects the filled in responses from the offices presented by the said questionnaires.

⁵⁸ Kothari, C.R, Research Methodology: Methods and Techniques, 2nd Revised Ed. New Age, 2004, p. 98

⁵⁹ *ibid*, pp.97-98

1.8.4.1 Secondary data:

This is a data that has been written and documented. It is very important because it is the source of information that establishes the gap that has to be filled. Also it provides the baseline upon which a researcher builds his/her theoretical framework.

1.8.4.2.1 Documentary review:

Under this aspect the documentary review is aimed to be employed on one hand whereby various Libraries were visited with intention to gain solutions of various problems especially legal problems. This was done through consultation of various Conventions and statutes, books, Articles, past reports done by other authors in relation to this work. The various Libraries of Dar es Salaam, University, Mzumbe University, National library of Tanzania Dar es Salaam were visited.

1.8.4.2.2 Electronic sources:

In conducting this research the usefulness of internet was highly utilized, as it assisted in getting current news and data which were useful and relevant to this research. Thus various website which were environmental based were utilized on one way or another.

1.8.5 Data processing and analysis.

This aspect of Processing of data involved editing, coding and classification. Collected data was edited to identify errors and omissions and to make necessary corrections. Also, to ensure clarity, correctness and consistence of data with other facts gathered. Both field and central editing was conducted.⁶⁰ Thereafter data was coded. Coding refers to the process of assigning numerals or symbols to the answers so that responses can be put into a limited number of categories or classes.⁶¹

This was done in order to facilitate analysis. The next step was the classification of data by putting data having the same traits together in a number of classes to reduce the bulkiness of the collected raw data. And, lastly, data was tabulated to make comparison

⁶⁰ Kothari, C.R, Research Methodology: Methods and Techniques, 2nd Revised Ed. New Age, 2004, p. 98

⁶¹ Ibid at p. 123

possible and identification of errors easy. After processing, data was analyzed by evaluating the responses on the hypothesis and the verification of the problem.

1.8.6 Scope and limitation of the study;

Tanzania coastal line stretches for almost 800 kilometers, comprising of five regions Tanga, Coast, Mtwara, Lindi and Dar es Salaam.⁶² However since most of the laws and policies under review apply to mainland Tanzania therefore the scope of the study is limited to the coastal zone of Tanzania mainland, specifically Dar es Salaam and some parts of the Coast Region.

1.8.7 Description of the area of study:

Due to the availability of data in various offices, this research was conducted in Government offices, NGOs offices, private and faith based industries, hospitals and health centers in Tanzania mainland.

1.8.8 Geographical location:

The study took place in Tanzania mainland particularly Dar es Salaam as coastal area and it is fully flagged with big polluting industries, shipping activities, fishing ground and wastes dumping area. Also the area was of an interest to the researcher due to lack of funding.

⁶² Tanzania Coastal Management Partnership Support Unity, Optionals for National Integrated Coastal management Policy. Dar es salaam 1999.

CHAPTER TWO
THE CONCEPTUAL FRAMEWORK OF COASTAL ZONE
MANAGEMENT

2.1 Introduction

This chapter reveals the broad understanding of most theories, concepts of law and practice on the aspects of coastal environmental management especially in coastal states particularly Tanzania. This chapter forms a paramount significance in understanding various concepts relating to coastal management, while giving the relevant meaning of the concepts of which one can grasp its applicability towards management of coastal environment.

2.2 Environment

For many people the term “environment” refers only to flora and fauna, such as trees, animals, birds and insects. It is in fact a much broader concept than this. The environment refers to almost everything around us, as well as the interactions and processes that link these different elements. It includes tangible environmental resources such as water, land, minerals, forests, rangeland, crops, wildlife and air, as well as the problems and issues resulting from the inadequate management of these resources such as disease from polluted water, respiratory problems from air pollution, displaced populations as a result of drought, and loss of livelihoods and income as a result of degradation of land and the resources on it.

A legal definition of the “environment” is important to delineate the scope of the subject, and determine the application of legal rules, and establish the extent of liability when harm occurs. Under the English-language term “environment” is borrowed from an ancient French word “*environner*”, meaning to encircle. Most languages had to borrow

or invent new terms when concern emerged about the potential destruction of natural resources and processes on which life depends.⁶³

A program of UNESCO uses the term “biosphere” to designate the part of the universe where, according to present knowledge, all life is concentrated. *Webster’s Dictionary* begins with a general definition of the environment, reflecting the original French meaning: “the circumstances, objects, or conditions by which one is surrounded.”⁶⁴

It continues with a more precise meaning: “the complex of physical, chemical, and biotic factors (such as climate, soil, and living things) that act upon an organism or an ecological community and ultimately determine its form and survival” to which it adds “the aggregate of social and cultural conditions that influence the life of an individual or community.” The last definition is very broad and brings problems such as traffic congestion, crime, and noise within the field of environmental protection.

In law, “environment” can refer to a limited area or encompass the entire planet, including the atmosphere and stratosphere. International legal instruments generally define “environment” broadly. A text of the European Community includes “water, air and land and their interrelationship as well as relationships between them and any living organism.”⁶⁵

The Tanzania environmental law provide that:⁶⁶ “environment” includes the physical factors of the surroundings of human beings including air, land, water, climate, sound, light, odour, taste, micro-organism, the biological factors of animals and plants, cultural resources and the social economic factor of aesthetics and includes both the natural and the built environment and the way they interact.

⁶³ New words have emerged in many languages to express the concept of the environment: “Umwelt” (German), “milieu” (Dutch), “medio ambiente” (Spanish), “meio ambiente” (Portuguese), “Al’biah” (Arabic) and “okruzhauchhaia sreda” (Russian) and “kankyo” (Japanese).

⁶⁴ “Environment” defined in Webster’s Ninth New Collegiate Dictionary (1983).

⁶⁵ Article 2, Council Directive of June 27, 1967, O.J. L 196 (7/16/67).

⁶⁶ Tanzania environmental management Act of 2004.

2.3 Environmental law.

Over the past several decades, growing public awareness of threats to the environment, informed by warnings of scientists, has led to demands that law protect the natural surroundings on which human well-being depends. Under growing pressure from national and international public opinion, governments began to demonstrate concern over the general state of the environment during the 1960s and introduced legislation to combat pollution of inland waters, ocean, and air, and to safeguard certain cities or areas. Simultaneously, they established special administrative organs, ministries or environmental agencies, to preserve more effectively the quality of life of their citizens. Developments in international environmental law paralleled this evolution within states, reflecting a growing consensus to accord priority to resolving environmental problems. Today, national and international environmental law is complex and vast, comprising thousands of rules that aim to protect the earth's living and non-living elements and its ecological processes.

2.4 International environmental law

International environmental law is complex and vast, comprising hundreds of global and regional norms that aim to protect the earth's living and non-living elements and its ecological processes. This relatively recent body of law emerged from growing public awareness, informed by warnings of scientists, that our planet is endangered by the activities of an ever-increasing number of humans, by invasive technology, and by rapid consumption of the earth's resources. Environmental degradation is evident in the pollution of rivers and lakes, black tides along the coasts, and poisonous fog and smog in the cities of nearly all countries. Other problems stem from endemic poverty, including desertification and the creation of immense urban areas. Throughout the world, humans are causing the unprecedented extinction of biological resources.

2.5 The coastal environment;

The term coastal environment means “the navigable waters (including the lands therein and there under) and the adjacent shorelines (including waters therein and there under). The term includes transitional and intertidal areas, bays, lagoons, salt marshes, estuaries, and beaches; the fish, wildlife and other living resources thereof; and the recreational and scenic values of such lands, waters and resources.⁶⁷ On the other hand a coastline or seashore is the area where land meets the sea or ocean.⁶⁸ A precise line that can be called a coastline cannot be determined due to the dynamic nature of tides. The term "*coastal zone*" can be used instead, which is a spatial zone where interaction of the sea and land processes occurs.⁶⁹ Both the terms coast and coastal are often used to describe a geographic location or region.

This concepts coastal zone means the geomorphologic area either side of the seashore in which the interaction between the marine and land parts occurs in the form of complex ecological and resource systems made up of biotic and *abiotic* components coexisting and interacting with human communities and relevant socio-economic activities.⁷⁰

On the other hand, coastal zone means the coastal waters (including the land therein and there under and the adjacent shore lands (including the waters therein and there under, strongly influenced by each and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands and beaches.⁷¹

⁶⁷ Coastal Environment Law & Legal Definition- According to 33 USCS § 1502 (5), the term coastal environment has been defined:

⁶⁸ The American Heritage Dictionary of the English Language: Fourth Edition. 2000.
<http://www.bartleby.com/61/43/C0434300.html>. Retrieved 2011-12-11

⁶⁹ Nelson, Stephen A. (2007). "Coastal Zones". .
<http://www.tulane.edu/~sanelson/geol204/coastalzones.htm>. Retrieved 2011-12-11.

⁷⁰ Coastal zone definition as provided by Mediterranean ICZM Protocol, 2008

⁷¹ US Coastal Zone Management Act, 1972

2.6 Pollution

Pollution can be defined as any action or condition impinging on land, air or water, which is detrimental to health, sanitation or the public interest. In Tanzania, the major types of pollution related to human activity can be classified as caused by urbanization, industrialization, mining activities, the use of chemicals and oil spills.⁷²

This concept can as well refer to the contamination of air, water, or soil by substances that are harmful to living organisms. Pollution can also mean the introduction of contaminants into a natural environment that causes instability, disorder, harm or discomfort to the ecosystem i.e. physical systems or living organisms.⁷³ Pollution can take the form of chemical substances or energy, such as noise, heat or light. Pollutants, the components of pollution, can be either foreign substances/energies or naturally occurring contaminants.

Pollution is often classed as point source or nonpoint source pollution. Pollution can occur naturally, for example through volcanic eruptions, or as the result of human activities, such as the spilling of oil or disposal of industrial waste.⁷⁴ It can also disturb natural rhythms of growth in plants and other organisms, Heat from hot water that is discharged from a factory into a river or lake, or ocean where it can kill or endanger aquatic life.

2.7 Polluter

This is a natural or legal person or organization that causes pollution of the environment.⁷⁵ This may be done by deliberately or by mistake of facts and lack of knowledge in the means of pollution of the environment.

⁷²S.Mkuuula Pollution of wetlands in Tanzania, National Environment Management Council at p 1.

⁷³ "Pollution - Definition from the Merriam-Webster Online Dictionary". Merriam-webster.com. 2012-02-13. <http://www.merriam-webster.com/dictionary/pollution>. Retrieved 2012-02-26.

⁷⁴ Spengler, John D. and Sexton, KA(1983) "Indoor Air Pollution: A Public Health Perspective" Science (New Series) 221(4605): pp. 9–17, page 9

⁷⁵ <http://www.thefreedictionary.com/polluter>/see also Cambridge Dictionary has the same definition.

2.8 Pollutants

A pollutant is a waste material that pollutes air, water or soil. Three factors determine the severity of a pollutant: its chemical nature, the concentration and the persistence. Air pollution comes from both natural and manmade sources. Though globally man made pollutants from combustion, construction, mining, agriculture and warfare are increasingly significant in the air pollution equation.⁷⁶

Motor vehicle emissions are one of the leading causes of air pollution; China, United States, Russia, Mexico, and Japan are the world leaders in air pollution emissions. Principal stationary pollution sources include chemical plants, coal-fired power plants, and oil refineries.⁷⁷ Petrochemical plants, nuclear waste disposal activity, incinerators, large livestock farms (dairy cows, pigs, poultry, etc.), PVC factories, metals production factories, plastics factories, and other heavy industry. Agricultural air pollution comes from contemporary practices which include clear felling and burning of natural vegetation as well as spraying of pesticides and herbicides.⁷⁸

2.9 Population density

Population density is a measurement of population per unit area or unit volume. It is frequently applied to living organisms, and particularly to humans. It is a key geographic term.⁷⁹

This concept is becoming relevant to this work as it has been the major cause of coastal environment deterioration by human activities taking place around or along the coast.

2.10 Dumping of waste

Before giving the meaning of the concept dumping of waste, it is paramount important to understand the primary meaning of the term *Waste* as such. The meaning attached to this concept by provides that waste is any substance which constitutes a scraps material

⁷⁶Declaration of the United Nations Conference on the Human Environment, 1972.

⁷⁷ Beychok, Milton R. (1967). *Aqueous Wastes from Petroleum and Petrochemical Plants* (1st ed.). John Wiley & Sons. ISBN 0471071897. LCCN 67019834.

⁷⁸Silent Spring, R Carlson, 1962

⁷⁹ Matt Rosenberg,(2011) population Density, geography,.about.com. retrie0ved on 21-march 2012.

or an influent or other unwanted surplus substance arising from the application of any process, but also waste can mean substance or article which requires to be disposed of as being broken, worn out, contaminated or otherwise spoiled. However waste in all cases does not include explosives.⁸⁰

The *concept dumping* of waste means any act of deliberate disposal of wastes or other matter from vessels, aircraft, platforms, or any other man made structure at a certain part of environment, being land area, sea, or outer space.⁸¹

2.11 Conclusion.

This chapter has discussed and defined the major concept which has a close connection to the study. The concepts which are relating to this subject are many; however the researcher chosen some which have been discussed above to address this research, due to their close connection to the study. Thus it is the intention of the researcher that the meaning which has been provided under this chapter will be in close relation on the coming chapters, for a reader to grasp and benefit from this work, with the view to protect the coastal environment.

⁸⁰ David Woolley(2009) Environmental Law Planning and pollution Control in developing Countries/ at pg 10 see also the case of Long v Brooks [1980] Crim LR 109

⁸¹ See the law of the sea convention 1982 under Article 1 (5) (a) , (b)

CHAPTER THREE

THE LEGAL AND INSTITUTIONAL FRAMEWORK OF

COASTAL ZONE MANAGEMENT IN TANZANIA

3.1 Introduction

The aim of this chapter to the research report is nothing but to explain and analyse the system of laws in the country concerning the protection of environment more specifically the protection of coastal environment. It also gives the analysis of the institutional set up dealing with the management of the coastal environment in Tanzania.

3.2 Legal Framework

This part makes an analysis of the legal framework that deals with the management of the environment in that analysis the research tries to look into how these laws address the problem of coastal zone environmental protection. Together with national laws, also international instruments of which Tanzania is a part will be analysed to see how the same has guaranteed the protection of coastal zone environment, (The international environmental laws).⁸² It is the aim of this work to assess in detail the laws relating to environmental protection and management, and create a clear picture on how the same suffice or otherwise the protection of coastal zone environment. This assessment begins by looking into the international conventions and the national laws.

3.2.1 The coastal zone management at the international community

The concern of environmental problem, has for long been reflected in general international law and the relevant legal categories including the law of the sea, State responsibility, Space law, the legal regime of Antarctica, as well as The non navigational uses of international water courses. At the same time, it is evident that the general international law does not provide the focused problem-solving which result from

⁸² Treaties, Conventions, Protocols and Declarations having bearing to the protection of coastal environment.

careful prepared standard-setting treaties linked with domestic and international support systems and funding.⁸³

Recent years have seen an appreciable growth in the level of understanding of the dangers facing coastal environmental, which is now a subject of serious international concerns.⁸⁴ These dangers include atmospheric pollution, marine pollution, global warming, ozone depletion, the danger of nuclear, other extra-hazardous substances and threatened wildlife species. These problems have an international dimension in two obvious respects.

Firstly being the pollution generated from within the particular state obvious has a serious impact upon other countries. A prime example being acid rain, resulting from chemical emitted from factories, rise in the atmosphere and react with water and sunlight to form acids. These are carried in by wind and fall eventually to earth in the rain, often thousands of miles away from the initial polluting event.

Secondly is now apparent that coastal environmental problems cannot be resolved by state acting individually, that being the case the co operation between the polluting and the polluted state is necessitated.⁸⁵ However a state would only be responsible in the international legal sense for damage caused where it could be clearly demonstrated that this resulted from its own unlawfully activity.⁸⁶ This can best be proved from the decision of the Court in *Trail Smelter case*.⁸⁷ where the court awarded a sum of compensation to the affected state.

This proves the inadequate in the part of legal framework for dealing with environmental issues for a variety of reasons. First, ranging from difficulties of proof to liability for

⁸³ Ian Brownlie (2003) Principles of public international Law 6th Edition, at pp 273-274.

⁸⁴ This may be measured by the fact that in July 1993, the ICJ established a special chamber to deal with environmental questions. Though up to now it has heard no case. See R. Ranjeva, L'Environnement, La Court International de Justice et sa Chambre Specials pour les questions d'Environnement; AFDI, 1994,p 433.

⁸⁵ Shaw MN. (2003) International Law 15th Edition, University of Cambridge. at pp 753-754.

⁸⁶ Ibid at pg 754.

⁸⁷ [1941] 3 U.N.R.I.A.A 1905

lawful activities, and secondly is the particular question of responsibility of non-state offenders.⁸⁸ This problem has been seen from the international community as has been slowly moving away from the classic state responsibility approach for damage caused towards a regime of international co-operation.

There are some notable efforts made by various international participants, which are concerned with development in this field of coastal environmental management. State, of course as the dominant subjects of international legal system are deeply involved as are an increasing number of international organizations. These include the UN General Assembly which had adopted a number of resolutions concerning environment.⁸⁹ Another is the UN Environmental Programme (UNEP) which was established after the Stockholm conference in 1972, which has proved to be a particularly important organization in the evolution of convention and instruments in the field of environmental protection.⁹⁰

3.2.1.1 The United Nations Convention on the Law of the Sea 1982

This is among the earliest efforts to make sure the sea is regulated⁹¹ particularly the coast. This Convention provides for the protection of the continental shelf, in part under Article 5, Under Part XII, the Convention provides for the protection of the marine environment as such. However this convention does not talk straight about the coastal environment and its protection or management.

3.2.1.2 The Convention on the Territorial Sea and the Contiguous Zone 1958

Claims about the territorial jurisdiction of a state was to be given some limits, therefore this convention was adopted.⁹² Under Article 24 (a) of the Convention there is partly a provision giving jurisdiction to a coastal state to prevent pollution by enacting some

⁸⁸ In Trail Smelter Case [1941] 3 U.N.R.I.A.A 1905

⁸⁹ See Resolution 2398 (xxii), 2997 (XXII); 34/188; 35/8; 37/250; 42/ 187;44/244; 44/ 228; 45/212 and 47/188.

⁹⁰ Shaw MN. (2003) International Law 15th. Edition, University of Cambridge. at p. 755.

⁹¹ Done at Geneva on 29 April 1958, Entered into force on 10th June 1964, United Nations, Treaty Series, Vol 499, p,311

⁹² Done at Geneva on 29th April 1958. Entered into force on September 1964. United Nations, Treaty Series, Vol 516,p.205

regulations regarding sanitation. These two conventions did not touch more on the conservation of the coast until 1982 when there was a new convention in the name of the convention on the law of the sea.

3.2.1.3 The Convention on the Continental Shelf 1958

The United Nations Convention on the Law of the Sea (UNCLOS) is an international treaty governing the use and exploitation of the world's oceans. Nations around the world met 30 years ago in an intense, ten-year round of international negotiations which culminated in the 1982 Convention. On November 16, 1994, after attaining the requisite 60 signatures, the Law of the Sea Treaty entered into force and became international law.⁹³

The Law of the Sea Treaty is a true constitution of the sea, establishing a coherent, uniform and global rule of law governing the use of the oceans, including the skies above and the seabed below. Although the treaty is almost as vast as the oceans themselves, its major principles include: Marine Scientific Research, Exclusive Economic Zones, Dispute Settlement Provisions and Environmental Protection, which is the concern of this work. Under this principle (Environmental Protection) the convention contains provisions obligating states to protect the marine environment and to conserve living species.⁹⁴ States are liable for damages if found to be in violation of these international obligations.

However this instrument has no provision on the part of coastal environment protection. Since most of the provisions under part XII of the convention which deals with environment issues has put emphasizes on the principles of marine protection than that of coastal environment protection.

⁹³United Nations Convention on the Law of the Sea NMMA Position Paper by National Marine Manufacturer Association.

⁹⁴ Article 192. States have the obligation to protect and preserve the marine environment.

3.2.2 The coastal environmental protection in Africa;

In African continent as whole, environment has deteriorated steadily, with poverty being the main cause of that degradation, and with the poor being its direct victims. High levels of poverty in combination with increasing instances of climate variability and natural disasters, internal institutional weaknesses in Africa, and unfair trading practices in developed countries have made Africans more vulnerable physically, psychologically and economically. The collective African capacity to cope with increasing vulnerability is generally low.⁹⁵

Given the magnitude of these problems, it may appear as if African governments, and sub-regional and regional organizations, are doing nothing to solve them. This is not so. They have initiated steps to halt or even reverse environmental degradation, although initiatives are now required for more effective implementation of policies and strategies that have been adopted.

It is also significant that Africa has a vision for sustainable development embodied in the newly formed African Union and the New Partnership for Africa's Development. There is great optimism that Africa can catch up with the rest of the world and even suppress it, using the Great Transitions scenario. However, if this is to be achieved, African countries need, amongst other things: reduce poverty; improve the state of the environment; improve management systems; reduce vulnerability to adverse environmental changes; promote regional and sub-regional cooperation; mobilize additional financial resources; and create an effective institutional structure to holistically manage the environment on a regional wide basis.

African governments must show greater political will and commitment to solving environmental problems, and must be prepared to devote their own financial and human resources to practical environmental action. They must also address the issue of

⁹⁵ <http://www.UNEP.org/dewa/Africa/Publications/aeo-1330.ht>. Under African Environment Outlook; Past, present and future perspectives.

corruption if they are to improve efficiency in utilization of resources, and they must embrace the democratic process for better governance.

African national governments, sub-regional organizations, African Ministerial Conference on Environment (AMCEN),⁹⁶ and the international community are encouraged to contribute to implementation of the specific activities proposed in the 31 areas for action identified above. A key responsibility lies with AMCEN, and with sub-regional groupings and national governments, to mobilize adequate technical, human and financial resources for the implementation of these activities. The international community is also urged to support the efforts of the national governments, sub-regional organizations and AMCEN, in the spirit of the New Partnership for Africa's Development.⁹⁷

In 1988, the Organization of African Unity, (OAU) adopted the resolution of proclaiming the dumping of nuclear and industrial waste in Africa to be a crime against Africa and its people.⁹⁸ In 1991, the OAU adopted the Bamako Convention on the Ban of the import into Africa and the control of Trans-boundary movement and management of Hazardous Wastes within Africa.⁹⁹ Under which parties were to prohibit the import of all hazardous waste for any reason into Africa by non parties and to prohibit the dumping at sea of such wastes.¹⁰⁰ These efforts have been made in general to protect the environment, they have not directly addressed the protection of the Coast, and however one can open the Pandora box and claim that the Coastal environment is inclusive.

⁹⁶The African Ministerial Conference on the Environment (AMCEN) was established in December 1985, following a conference of African ministers of environment held in Cairo, Egypt. Its mandate is to provide advocacy for environmental protection in Africa; to ensure that basic human needs are met adequately and in a sustainable manner; to ensure that social and economic development is realized at all levels; and to ensure that agricultural activities and practices meet the food security needs of the region.

⁹⁷This information was provided by the Government of the United Republic of Tanzania to the fifth session of the United Nations Commission on Sustainable Development. Last Update: 1 April 1997.

⁹⁸ Shaw M.N (2003) International Law 6th Edition at p. 804.

⁹⁹ 30ILM, 1991,p, 773 in Malcom N Shaw (2003) international Law 6th Edition at p 804.

¹⁰⁰ Ibid.

3.3 The legal protection of coastal zone management in Tanzania

Before analysing the legal protection in Tanzania it is important that, the sources of pollution in the country being ascertained, as follows, *Firstly* is Industries, that the presence of industries in the coastal areas, has brought about adverse effect to environment than positive ones, this has been for so long time in various coastal cities. Most of pipes carrying industrial waste have been directed to coastal zone or to the sea of which ocean currents carry it together with water into the coastal areas. this can be proved by the presences of heavy polluting industries namely the Fertilizer industry and, Cement Industries located at Wazo area, Urafiki Textiles industries located at Ubungo area, and Karibu Textile Millis (KTM) located at Mbagala area, Serengeti Breweries Company Ltd (SBC) located at Temeke area, and, Tanzania Breweries Ltd (TBL), Breweries located at Ilala area.

Those industries has been blamed for long time of its illegal pollution of coastal zone environment, as its waste pipes are directed into the shoe of Indian ocean, while others are exposing its waste on open ground, to the extent that it causes a bad smell and polluting of air and water which are used by ordinary people in those areas and thus endangering their safety of life.

Secondary is the small industries and domestic waste, these are other sources of pollution, that most of domestic waste are not well disposed in a safe manner, as most of dumping sites are not legally allowed thus there is un even disposal of waste. There are some areas which are legally identified for waste disposal like Tabata, Kunduchi, and Mbagalla. However there are lot of areas which are not allocated for that purpose, but still people and other institutions are disposing their domestic waste and other hazardous waste on those areas illegally.

Thirdly are the waste produced from ships and other refineries industries dealing with oils transportation and purifying respectively, are other area of sources of coastal zone pollution. There are a number of tankers which out of damage and mechanical failure do dispose oil into the sea which has adverse impacts to the coastal zone environment.

This problem has been there in Dar es Salaam port and has affected the coastal zone environment due to poor control of these sources of pollutions.

Tanzania as a sovereign state has a right under international law to enact and enforce laws within its territory. For this reason the country has enacted a number of laws and regulations in order to make sure the environment is protected.

3.3.1 The Constitution of United Republic of Tanzania 1977.

Tanzania has had four constitutions since 1961, none of which originally included protection for basic human rights. However, the current constitution, adopted in 1977, was amended in 1984 to include these rights. A provision was also included that made these rights unenforceable for three years so the government could amend statutes that were inconsistent with the constitution. Starting in 1987, public interest advocates and the courts took action, striking down statutes that violated basic environmental rights.¹⁰¹

The Bill of Rights Chapter in the Constitution of the United Republic of Tanzania does not address precisely environmental matters.¹⁰² The environmental rights which could be pursued by any one aggrieved has not been ascertained within the constitution, of which could prompt the development of environmental laws and other laws, which are relevant to the protection of the coastal environment.

The Constitution of the United Republic of Tanzania was amended in 1984 to provide for the Bill of Rights.¹⁰³ Article 14 of the Bill of Rights stipulates that every person has a right to life and to the protection of life by society. The High Court in a landmark ruling in the case of *Festo Balegele v Dar es Salaam City Council*.¹⁰⁴ Interpreted this article to

¹⁰¹ Tundu Lisu Environmental Rights Key to environmental protection in Africa, An Attorney with the lawyers environmental Action Team in Tanzania discussing the evolution of constitutional environmental law in Tanzania January/ February 2010

¹⁰² Mwansoho GG The Utility of Polluter Pays Principle as means of environmental protection in developing countries: a case study of Tanzania. A Dissertation Submitted in Partial Fulfillment of Masters of Laws at Mzumbe 2011.

¹⁰³ R.M. Bierwagen and C.M. Peter, 'Tanzania: Political and Constitutional Evolution and Analysis of the Constitution in F. Reyntjens ed., *Constitutiones Africae* 1, 20 (Brussels: Bruylant, Vol. 4, 1992).

¹⁰⁴ *Festo Balegele v Dar es Salaam City Council*, Misc. Civil Case No. 90 of 1991, High Court of Tanzania, Dar es Salaam; see also *Felex Joseph Mavika v Dar es Salaam City Commission*, Civil Case

mean that persons are entitled to a healthy environment, and held that the City's decision to locate the garbage dump near residential areas violated plaintiffs' constitutional rights to a healthy environment.

In addition, Article 9 of the Constitution requires the Government to ensure that national resources are harnessed, preserved, and applied toward the common good. Although this Article is part of the non-judicial 'fundamental objective and directive principles of the state policy' provisions of the Constitution.¹⁰⁵ It portrays the commitment of the Government to ensure sustainable development.¹⁰⁶ However the Constitution has not addressed enough the terms of environmental protection and its rights. Thus the researcher wishes to provide necessary areas to be taken into account should it be amended, in order to incorporate articles on the coastal zone management.

3.3.2 Legislations

Under the doctrine of separation of powers, the parliament is responsible for the enactment of laws. These are very important in the control and management of the coastal environment. An analysis of these laws is done hereunder.

3.3.2.1 The Local Government (Urban Authorities) Act of 1982

The presence of this Act gives considerable responsibility to urban authorities for waste collection and disposal. It requires urban authorities to, among other things, "remove refuse and filth from any public or private place."¹⁰⁷ Also, urban authorities are required to provide and maintain public dustbins and other receptacles for the temporary deposit

No. 316 of 2002, High Court of Tanzania, Dar es Salaam. In this case, the plaintiffs instituted a main case claiming remedies from the defendants. They also applied for an interim order to restrain the respondents from dumping solid and liquid wastes in the Vungunguti area (Dar es Salaam) to prevent pollution of the environment as well as to stop the endangering the lives of the plaintiffs and their families and other residents, pending the determination of temporary injunction. This case was still pending in the High Court of Tanzania in Dar es Salaam when this work was compiled.

¹⁰⁵ R. Mwalosi and R Hughes, Introduction Course on Environmental Impact Assessment in Tanzania: Resource Handbook (London: International Institute for Environment and Development, 1999).

¹⁰⁶ Under the Constitution of the United Republic of Tanzania of 1977, policies and laws respecting natural resource management, are established and implemented by the central government. Parliament has exercised its constitutional authority to make laws concerning resources and the environment.

¹⁰⁷ The Local Government (Urban Authorities) Act of 1982. Section 55 (g).

and collection of rubbish.¹⁰⁸ Provides for the prevention and abatement of public nuisances which may be injurious to public health or to good order. Urban authorities are also empowered to ensure that residents keep their premises and surroundings clean. This responsibility derives from the Township Rules, made under the *Township Ordinance* of 1920.

These rules have been retained over time and are operative under the *Local Government (Urban Authorities) Act*. To meet these responsibilities, the DCC drafted a number of bylaws relating to waste management. The most important of these are the *Dar es Salaam (Collection and Disposal of Refuse) Bye Laws* of 1993. Other related bylaws include the *Dar es Salaam City Council (Hawking and Street Trading) Amendment Bye Laws* of 1991 and the *Dar es Salaam City Council (Animals, City Area) Bye Laws* of 1990.

The *Dar es Salaam (Collection and Disposal of Refuse) Bye Laws* were passed to enable the privatization of waste disposal. They require occupiers of premises to maintain receptacles to keep waste and bind the DCC to collect and dispose of waste. Among other things, these bylaws prohibit people from causing a nuisance and throwing or depositing waste on streets or in open spaces not designated as collection points. The DCC may require an offender to remedy the situation; Most of the legislation cited above also applies to industrial waste.

Although these laws may be construed to protect the city of Dar es salaam as such, but none of them neither the Act, or its Regulations provide in precise the protection of coastal environment. The Act has some good provisions concerning disposal of industrial waste. However its implementation is a biggest weakness

On the other hand, it will thus be clear that there is a reasonable legislative base to deal with urban-waste management, than coastal management in general. Nevertheless, much

¹⁰⁸ Op cit, Section 55(i)

of this legislation goes unenforced, and some of it is completely out of date, especially in terms of sanctions provided to deal with offenders of environment. Also, implementation is adversely affected by power overlaps between one organ and the other.

3.3.2.2 Land Use Planning Commission Act of 1984

The National Land Use Commission was established under this act as the principal advisory organ of the Government on all matters related to land use. Among other things, it recommends measures to ensure that the Government policies including those for development and conservation of land, take adequate account of their effects on the land use, seek the advancement of scientific knowledge of changes in land use and encourage the development of technology to prevent, or minimize adverse effects that endanger man's health or welfare, specify standards, norms and criteria for the protection of beneficial uses and the maintenance of the quality of the land.

In accordance with the functions mentioned above, the commission can indirectly help to prevent or minimize pollution by restricting location of potential and actual pollution sources and not otherwise. The proposed project seeks to eliminate sources of pollution by safeguarding and disposing obsolete pesticides safely for protection of the environment and public health. However the specific mention of coastal environment problems has not been addressed under this piece of legislation.

3.3.2.3 The Plant Protection Act, 1997.

The Act provides for the prevention of the introduction and spread of harmful organisms, ensure sustainable and environmental protection, the control of importation and use of plant protection substances, regulate exports and imports of plants and plant products and ensure the fulfillment of international communities, entrust all plant protection regulatory functions to Government, and for matters incidental thereto or connected therewith. The Plant Protection Act has six parts which are: preliminaries which cover the short title and commencement, together with its interpretations.¹⁰⁹

¹⁰⁹ Part I. Of The Plant Protection Act of 1997

Plant Protection,¹¹⁰ Plant protection substances and plant resistance Improvers.¹¹¹ Assignment of duties and appointment of officers.¹¹² Offences and penalties.¹¹³ Of The Plant Protection Act of 1997 and its Plant Protection Regulations of 1999 are currently undergoing review to conform to relevant international chemical conventions and codes of conduct. However this piece of legislation has not addressed in its provisions the issues of coastal environment protection.

3.3.2.4 The Surface and Marine Transport Regulatory Authority Act, 2001

This Act established a regulatory authority in relation to the surface and marine transport sectors, and to provide for its operation in place of former authorities and for related matters. The Authority takes over and continues carrying out the functions formerly of the Tanzania Central Freight Bureau set out in section 4, 4A and 4B of the Tanzania Central Freight Bureau Act, 1981.

In carrying out its functions, the Authority is required by the Act to strive to enhance the welfare of Tanzania society by taking into account the need to protect and preserve the environment among other duties.

However, the policy does not articulate safety measures to be taken during transportation of hazardous goods. Transportation of obsolete pesticides will abide to the provisions of this Act for protection of the public health and environment.

Just like above legislations this Act also does have specific provisions on the protection of coastal environment protection, or management as such.

3.3.2.5 The Merchant Shipping Act 21 2003

This Act provides for the Registration and licensing of ships, to regulate proprietary interests in ships and terms of engagement of seafarers and matters ancillary thereto; to provide for the prevention of collisions at sea, the safety of navigation and of life at sea,

¹¹⁰ Part II Of The Plant Protection Act of 1997

¹¹¹ Part III Of The Plant Protection Act of 1997

¹¹² Part IV Of The Plant Protection Act of 1997

¹¹³ Part V Of The Plant Protection Act of 1997

the Regulations of load lines, the carriage of bulk and dangerous cargoes, unsafe ships, inland waterways, passenger ships, wreck and salvage, the liability of ship owners and others and inquiries and investigations into maritime casualties. It also provide for pollution prevention and protection of marine environment and marine security; to consolidate the law relating to shipping and for connected matters.

The Act is divided into nineteen parts as follows; the carriage of bulk cargoes and dangerous cargoes has been made part of this Act.¹¹⁴ This part gives powers to the Minister to prescribe which goods, articles or materials to be carried in a ship are dangerous goods in accordance with the Safety Convention relating to the carriage of dangerous goods, and such regulations shall incorporate by reference, the International Maritime Dangerous Goods (IMDG) Code of the IMO.

The Minister may by regulations prescribe-(a) the method of packing and stowing dangerous goods; (b) the quantity of dangerous goods which may be carried in any ship; (c) the place or places within a ship in which dangerous goods may be carried; the marking that is to be placed on any package or container in which dangerous goods may be placed for shipment; and (d) the precautions to be taken with respect to the carriage of dangerous goods and the powers of inspection to determine compliance with the provisions of the regulations. According to the International Maritime Dangerous Goods (IMDG) Code of the IMO, pesticides fall under Class toxic substances. Therefore, should it be necessary to export by ship obsolete pesticides, which cannot be treated and safely disposed of locally, provisions of this Act shall be adhered to.

However there is no specific provision to address aspects of coastal management, although the same may be construed to have been covered by the Act though avoidance of pollution or disposal of dangerous substances on local environment.

¹¹⁴ Part XI.

3.3.2.6 Industrial and Consumer Chemicals (Management and Control) Act, 2003.

This Act provides for the management and control of the production, importation, transportation, exportation, storage, dealing, and disposal of chemicals and for matters connected therewith. The Objective of this Act is to regulate the management and control of industrial and consumer chemicals. Specifically, the Act makes provisions to how best is to deal with chemicals used in homes, institutions of learning, workplaces, (e.g. Industries and factories) and research institutes.¹¹⁵

The Industrial and Consumer Chemicals (Management and Control) Act focuses on management and control of production, import or export, transport, distribution, sale, use, storage and disposal of such chemicals. The aim of the control and management throughout the various stages which constitute the normal "life-cycle" of a chemical is to minimize potential risks to health and the environment.

This Act shall be implemented under the Government Chemist Laboratory Agency established under the Executive Agencies Act, 1997 (No. 30 of 1997). The Administration of this Act shall be in accordance with the Executive Agencies Act, 1997 (No. 30 of 1997). The Ministerial Advisory Board is empowered to manage and control the industrial and consumer chemicals.

The Act provides for the provisions for the management of industrial and consumer chemicals, focusing on precautionary measures to minimize harm to human life and the environment. Specific provisions are made for labeling, safe handling and medical surveillance of workers, management of chemicals and chemical wastes.¹¹⁶

Regarding disposal, the Act stipulates that no person shall dispose of any chemical, chemical wastes, chemical containers without obtaining a certificate from the Board issued after consultation with the NEMC or any other competent authority or institution

¹¹⁵ www.niras.com- Niras Finland Oy/Country Ounrty Environmental and Social Assessment (CESA), and Environmental Management Plan- (EMP) For Safeguarding and Disposal of Obstacle Pesticide in Tanzania.

Dar es Salaam, Tanzania.

¹¹⁶ Part IV of the Act,

as the Board may deem fit. It also specifies that the final disposal of any hazardous chemical wastes may only be executed by personnel having a certificate issued by the Board. According to the Act, disposal of chemical wastes should only be done after a person involved has applied in writing and granted a certificate by the Board.

Among other information, a person applying for a certificate for disposing chemical wastes must specify the nature and quantity of the chemical and where and in what manner the chemical wastes is to be treated and disposed of. Pertinent to prevention and management of accidents, among other things the certificate holder is required by the Act to take such steps and otherwise observe such precautions as are needed to prevent accidents and therefore harm to human health and environment and to prepare contingency plans and procedures for managing accidents which are required to be presented to the Board for approval.¹¹⁷

3.3.2.7 The Environmental Management Act, 20 of 2004.

This Act the Environmental Management Act in 2004,¹¹⁸ includes provisions for; legal and institutional framework for sustainable management of environment.¹¹⁹ An outline principle for management.¹²⁰ Impact and risk assessments.¹²¹ Prevention and control of pollution.¹²² Waste management.¹²³ Environmental quality standards.¹²⁴ Public participation,¹²⁵ compliance and enforcement.¹²⁶ And the basis for implementation of international instruments on environment.¹²⁷ However, the Act further repeals the

¹¹⁷ www.niras.com- Niras Finland Oy/Country Ounrty Environmental and Social Assessment (CESA), and Environmental Management Plan- (EMP) For Safeguarding and Disposal of Obstacle Pesticide in Tanzania. Dar es Salaam, Tanzania

¹¹⁸ This Act is a framework Act (a comprehensive umbrella) in that it is the legislation governing environmental aspects in Tanzania.

¹¹⁹The Environmental Management Act, 2004, Part V.

¹²⁰ Part II.

¹²¹Part VI.

¹²²Part VIII.

¹²³Part IX.

¹²⁴Part X.

¹²⁵ Part XIV.

¹²⁶ Part XVI.

¹²⁷Part XV.

National Environment Management Act, 1983 and provides for the continued existence of the National Environment Management Council.¹²⁸

In connection to this, the Act establishes a national Environmental Regulatory Body (ERB).¹²⁹ This environmental regulatory body oversees Environmental Units (EUs) at district and sectoral levels. The ERB and EUs are responsible for screening projects and the review of environmental impact assessment (EIA) reports. The ERB is to be consulted during scoping, although this is the responsibility of the proponent. ERB is also responsible for approving terms of reference prepared after scoping.¹³⁰

Under the Act, local authorities are supposed to be the principal executive agencies of environmental policies and regulations.

These local authorities are argued to work with environmental NGOs and community-based organizations (CBOs) which are coordinated by the Vice President's Office (VPO) and the Tanzania Association of Non Governmental Organizations.¹³¹ Local government is however weak and coordination with central government is lacking. Local authorities and institutions dealing with environmental management have often very few resources including environmental experts and funds.¹³² Tanzania's NEAP.¹³³ The environmental impact assessment, economic instruments and public participation.¹³⁴ Each aspect is briefly discussed hereunder for the purpose of looking at how the same are incorporated in the Environmental Management Act, 2004.

¹²⁸Sections 16-29. Environment Management Act, 2004

¹²⁹ The National Environmental Policy was drafted in 1997. These policies resulted in sectoral policy reforms thereafter and finally the enactment of the Environmental Management Act, Act No. 20 of 2004.

¹³⁰ In the absence of a robust institutional and legislative framework, it is perhaps not surprising that the quality and effectiveness of EIA in Tanzania has been highly variable.

¹³¹Dalal-Clayton and B. Sadler, *The Status and Potential Strategic Environmental Assessment* (London: International Institute for Environment and Development, 2003).

¹³²In the absence of a robust institutional and legislative framework, it is perhaps not surprising that the quality and effectiveness of EIA in Tanzania has been highly variable

¹³³ Declaration of the United Nations Conference on Environment and Development (hereafter Rio Declaration), Rio de Janeiro, UN Doc. A/CONF. 151/26/Rev.1 (Vol. 1, 1992), Principle 17.

¹³⁴ Declaration of the United Nations Conference on Environment and Development (hereafter Rio Declaration), Rio de Janeiro, UN Doc. A/CONF. 151/26/Rev.1 (Vol. 1, 1992), Principle 17.

One of the policy instruments considered most effective for the achievement of sustainable development in all spheres of environment, coastal management being the key concern, is the requirement that environmental impact assessment (EIA),¹³⁵ shall be undertaken for all proposed activities that are likely to have significant adverse impacts on the environment and which are subject to a decision of a competent national authority.¹³⁶

The idea to have this kind of legislation was the draft of national EIA guidelines, which envisaged the formulation of an EIA Law. It was from this draft that proposed the establishment of a national Environmental Regulatory Body (ERB), most likely the National Environment Management Council (NEMC), which was to oversee Environmental Units (EUs) at district and sectoral levels. The ERB and EUs had to be responsible for screening projects and the review of EIA reports.

The Environmental Regulatory Body (ERB) was also to be consulted during scoping, although this was to be the responsibility of the proponent. ERB were also to be responsible for approving terms of reference prepared after scoping. Reporting guidelines were to follow the standard procedures used in other countries, particularly those of the Republic of South Africa and those prepared by the Tanzanian National Parks.

One of the policy instruments considered most effective for the achievement of sustainable development is the requirement that environmental impact assessment (EIA),¹³⁷ that it shall be undertaken for all proposed activities that are likely to have significant adverse impacts on the environment and which are subject to a decision of a competent national authority.¹³⁸

¹³⁵The schedule to the new Environmental Management Act, 2004.

¹³⁶ D.M. Pallangyo, 'Environmental Impact Assessment for Mining Activities in Tanzania: Legal Analysis', LL.M. Dissertation (Pietermaritzburg: University of Kwazulu-Natal, 2005).

¹³⁷ the schedule to the new Environmental Management Act, 2004.

¹³⁸ D.M. Pallangyo, 'Environmental Impact Assessment for Mining Activities in Tanzania: Legal Analysis', LL.M. Dissertation (Pietermaritzburg: University of Kwazulu-Natal, 2005).

The National Environmental Action Plan describes the objective of EIA as ‘allowing maximization of long-term benefits of development while maintaining the natural resource base. However, the objectives of EIA are broader as they seek to protect the environment in the wider sense, and not just natural resources. Thus, an activity which would raise noise levels near a hospital or school or which can affect the human-made environment such as archaeological sites, historic towns, monuments and artifacts or relics, beaches, coastal recreations sites, or industrial centre may also be subjected to environmental impact assessment.¹³⁹

3.3.2.8 The Water Resources Management Act, 2009.

The Act repeals the Water Utilization (Control and Regulation) Act. Whereby it aimed at providing for institutional and legal framework for sustainable management and development of water resources; to outline principles for water resources management; but also to provide for the prevention and control of water pollution, to provide for participation of stakeholders and the general public in implementation of the National Water Policy.¹⁴⁰

The main principles and objectives of water resources management is enshrined within this Act.¹⁴¹ Among the objectives and principles include promotion of equitable access to water; polluter pays principle and the principle of eco-system integrity. Whereby the provision for ownership and control of water has also been guaranteed,¹⁴² it proposes that ownership of water resources shall be vested in the state.

The Act includes provisions on the powers of the Minister, appointment of Director of Water Resources, establishment of National Water Board, Basin Water Boards and catchment and sub-catchment water committees.¹⁴³ Preparation of integrated water

¹³⁹ Dalal-Clayton and B. Sadler, the Status and Potential Strategic Environmental Assessment (London: International Institute for Environment and Development, 2003).

¹⁴⁰ <http://www.parliament.go.tz/bunge/bill.php?search=2009> on the Bills of the water resources management. Reteved on 11march 2012.

¹⁴¹ Part II.

¹⁴² Part III.

¹⁴³Part IV provides for the management of water resources.

resources management plans which will include water balance for each basin of Mainland Tanzania compared with forecasted water demand with data and information regarding water availability.¹⁴⁴

Protection of water resources which include water resources classification and reserve, establishment of protected zones, declaration of groundwater controlled areas and prevention of pollution.¹⁴⁵ The provisions relating to water resources management works has also been guaranteed in the Act.¹⁴⁶ Dam safety and flood management.¹⁴⁷ Financial provisions which include water abstraction charges and use of water charges.¹⁴⁸ The Act contains provision or the management of trans-boundary waters.¹⁴⁹ The offences and penalties are also covered this legislation.¹⁵⁰

3.3.2.9 The Environmental Management (Soil Quality Standards) Regulations, 2007.

These regulations set limits for soil contaminants in agriculture and habitat, enforce minimum soil quality standards, prescribe measures designated to maintain, restore and enhance the sustainable productivity of the soil and prescribe minimum soil quality standards for sustaining ecological integrity and productivity of the soil. According to the regulations, among others, the National Environmental Standards Committee has the powers to set pollutant limits and specify procedures for determination of the quality of soil for protection of the soil from degradation as a result of anthropogenic activities such as agricultural and mining activities and waste disposal.

Owners and operators of a main polluting activity are required to voluntarily register with NEMC and obtain a soil pollutants discharge permit. Obligations of polluters are also given. According to the regulations, the NEMC plays a crucial role in soil quality

¹⁴⁴Part V

¹⁴⁵ Part VI

¹⁴⁶ Part IX.

¹⁴⁷ Part X.

¹⁴⁸Part XI.

¹⁴⁹ Part XII.

¹⁵⁰ Part XIII.

compliance and enforcement. Recording and reporting requirements, offences and penalties for non-compliance as well as how appeals against aggrieved decisions should be handled are stipulated.

Contaminant limits for selected soil pollutants mainly halogenated hydrocarbons (example, trichloroethylene, dichloromethane, tetrachloroethylene, carbon tetrachloride, etc.), fuel hydrocarbons (benzene, ethylbenzene, total xylenes, toluene, etc.), organic and inorganic pesticides (lindane, Atrazine, DDT, sulphur, Hexachlorobenzene, Aldrin, etc.) and their respective test methods are specified. The Regulations also cover contaminant limits for some heavy metals (e.g. arsenic, cadmium, nickel, copper, zinc, etc.) together with their test methods. Safeguarding activities shall be conducted in such a manner that contamination of soil by pesticides is minimized. Where necessary, these regulations will be used for ensuring that the ecological integrity of soil is protected.

3.3.2.10 Environmental Management (Hazardous Waste Control) Regulations, 2009.

These Regulations apply to all categories of hazardous waste and to the generation, storage, transportation, treatment and disposal of hazardous waste and their movement into and out of Mainland Tanzania. The Regulations is divided into eleven (11) main parts. Part 1 covers Preliminary Provisions of the regulations. Part II gives the General Principles for guiding principles of environment and sustainable development relevant to hazardous waste management including the precautionary principle; polluter pays principle; and the producer extended responsibility.

The Minister is responsible for providing policy direction and leadership in all matters pertaining to hazardous waste management under the Environmental Management Act.¹⁵¹ But also he is responsible for the environment is mandated by the regulations to classify all waste generated, transported, stored, disposed or exported from the United Republic on the basis of the method used under the Basel Convention on the Control of

¹⁵¹Part III of the Regulations addressed issues pertinent to Administration and Institutional Arrangement including the functions of the Minister responsible for the environment.

Trans-boundary Movement of Hazardous Waste and Their Disposal, 1989 and the Bamako Convention on the Ban of the Import into Africa and the Control of Trans-boundary Movement and Management of Hazardous Waste Within Africa, 1991. Provisions pertinent to transport, packaging and labeling of hazardous waste are also covered in this part.¹⁵²

On the other hand the Regulations provide that “any person who generates health care waste is required by the regulations to segregate at the point of generation and at all stages thereafter the waste in accordance with the categories provided under the Fifth Schedule of the Regulations.¹⁵³ Issues pertaining to securing and packaging, treatment, monitoring, storage, transportation and transfer stations of health care waste are also addressed. The management of pesticides waste is required by the Regulations to be done in accordance with the Plant Protection Act, the Tanzania Pesticides Research Institute Act, the Veterinary Act and the Public Health Act.¹⁵⁴ The Minister of responsible for the environment is required to liaise with the Minister responsible for pesticides with a view to putting in place regulatory framework that will ensure that the treatment and disposal of pesticides waste complies with the requirement of the Act in relation to management of hazardous waste.¹⁵⁵ Management of radioactive waste and industrial and consumer and chemical waste are as well covered in this part.

The regulation also addresses the issue of Electrical and Electronic Waste,¹⁵⁶ that Every person who posses or have control of electrical or electronic tools, accessories or equipment is generally obliged to ensure that electrical and electronic wastes are separated from other types of wastes and deposited separately into receptacles as prescribed by the Council or local government. It the requirement of the regulations that all persons who export hazardous Wastes must possess a valid permit issued by the

¹⁵² Part IV on The Hazardous Waste Management and Handling.

¹⁵³ Health Care Waste is covered in Part VI of the regulations.

¹⁵⁴ Pesticides, Radioactive and Chemical Waste are addressed in Part VII. of the Regulations.

¹⁵⁵ Part VII.

¹⁵⁶ Part VII of the Regulations

Minister and a valid Prior Informed Consent document issued by the designated authority of the receiving country.¹⁵⁷

On the aspects of penalty for improper disposal of hazardous wastes is also specified. Compliance and Enforcement issues are also covered by the regulations.¹⁵⁸ The Powers of environmental inspectors to serve prevention orders are stipulated. According to the Regulations, Director of Environment or an Environmental Inspector or an officer of Council has reasonable grounds to believe that a person is or will be conducting an activity, or is or will be in possession or control of substances or anything that may result in violation of the provisions of these regulations, he may serve a prevention order on that person. Penalties for noncompliance are also given in this Part.¹⁵⁹

The regulations also stipulated that where any damage is caused by hazardous waste which has been deposited into the environment, a person who deposited, caused or permitted a waste to be deposited, is liable for the damage to the environment and human health. A generator of hazardous waste is liable to subscribe to an insurance policy to cover risks likely to be caused to the environment and human health.¹⁶⁰ But like the above principal legislations, it does not address any matter specific to the coastal zone management; most of its provisions generalize to the entire environment, although may be construed to include coastal environment.

3.4. The institutional framework for coastal environmental protection in Tanzania.

The complexity of coastal environmental problems means that many sectors of the government and society are involved in actions to address them. In Tanzania, the Office of the Vice President is responsible for the Environmental management. This office, using the division of environment, is responsible for the development of policy options, and coordination of the broad-based environmental programmes and projects. It is also

¹⁵⁷Part IX contains issues pertinent to Permits and Licenses.

¹⁵⁸See Part X.

¹⁵⁹See Part X.

¹⁶⁰Part XI gives General Provisions

responsible for facilitating meaningful involvement of civil society in environmental activities.¹⁶¹

3.4.1 Vice President Office Environment Division

This office in particular, is charged with the duties and responsibilities of environmental research, environmental policy making, environmental planning, environmental monitoring, and environmental coordination of both national and international environmental issues. The strategic functions of the Office of the Vice President form the basis for the effective inter-ministerial cooperation and coordination, which, for example, has been underscored in the National Environment Policy and the National Environmental Action Plan (NEAP).¹⁶²

3.4.2 The National Environment Management Council (NEMC)

The National Environment Management Council (NEMC) was established by an Act of Parliament in 1983 to advise Government in the field of environment. It serves as a think-tank for the Government, undertakes environmental information generation, assembly, and exchange. A number of activities supporting Agenda 21 implementation have been undertaken by NEMC including pollution prevention and control; environmental education and public awareness; and natural resource conservation and management.

More specifically, the NEMC has sponsored the preparation of the national marine contingency plan; the inventory of destructive activities to the aquatic environment; a wetlands inventory and management strategy; an inventory of natural resources and environmental related projects; environmental impact assessment (EIA) reviews; and the assessment of community participation in natural resource management.

¹⁶¹ This information was provided by the Government of the United Republic of Tanzania to the fifth session of the United Nations Commission on Sustainable Development. Last Update: 2009. Under the heading. institutional aspects of sustainable development in the united republic of Tanzania

¹⁶² This information was provided by the Government of the United Republic of Tanzania to the fifth session of the United Nations Commission on Sustainable Development. Last Update: 2009. Under the heading institutional aspects of sustainable development in the united republic of Tanzania

Apart from the Vice President's Office and NEMC, many government ministries have been undertaking activities relevant to the implementation of Agenda 21. The complexity and inter-relatedness of the environmental problems have necessitated the involvement of almost every sector in environmental protection.

3.4.3 The intergovernmental environmental institutions.

The Government institutions and ministries which have been more directly involved in the implementation of Agenda 21 are the Prime Minister's Office; the Planning Commission; the Ministry of Agriculture; the Ministry of Water, Energy and Minerals; the Ministry of Lands, Housing and Urban Development; the Ministry of Education and Culture; the Ministry of Science, Technology and Higher Education; the Ministry of Community Development, Women Affairs and Children; the Ministry of Industries and Trade; and the universities.¹⁶³

3.4.4 Non Governmental Organizations (NGOs).

On the other hand, NGOs have also played a notable role in the field of environmental protection; Tanzania embraces a wide spectrum of NGOs ranging from social welfare NGOs, developmental NGOs, educational NGOs, women and youth NGOs, and research NGOs. Most NGOs were formed after the Bill of Rights came into force in 1987. This Bill guaranteed the right to free association and freedom of speech.¹⁶⁴

Most of the NGOs are either registered as societies under the Ministry of Home Affairs or as companies limited by guarantee under the Registrar of Companies. Donor dependence has also affected the functioning of most NGOs. Research NGOs are affiliated with universities and academic institutions.

In Tanzania, NGOs have been playing a very important role in managing the coastal environment and spearheading development programs. NGOs render technical support to community-based projects. They are familiar with community problems, needs, and

¹⁶³ <http://www.UN.org/esa/agenda21/natinfo/countr/Tanzania/inst.htm#info>, 23-october-2011.

¹⁶⁴ Made under the regulatory framework for NGOs based on the Societies Ordinance Cap. 337 of the Laws of Tanzania which was mainly meant to govern charitable organizations.

solutions. They also assist communities in interpreting laws and regulations. Although most of the NGOs are doing a good job in spearheading development projects and the coastal environmental conservation activities, their functions remain largely uncoordinated. In addition, most NGOs lack the necessary capacity to manage their activities. Their capacity needs to be built and strengthened. Some of the NGOs active in Tanzania are listed below, together with their location and activities:¹⁶⁵

Action Oriented, Tanzania Wildlife Conservation Society (TWCS): Dar es Salaam, awareness creation, anti-poaching, conservation activities, and general initiatives.

Lawyers' Environmental Action Team (LEAT): Dar es Salaam, environmental litigation, lobbying of environmental laws for enactment or amendment. They also deal with the provision of legal aids to people whose environment has been affected negligently by the state or investors.¹⁶⁶ A good example is the Tigite river north mara where the company flow water mixed with chemical used to separate gold to Tigite River. This is against environment Act of 1983 and 2004 on environmental impact assessment.

Tanzania Environmental Society (TESO): Dar es Saalam, environmental education and public awareness, soil conservation, afforestation, sustainable agriculture, land use, watershed management, networking.

Journalists Environmental Association of Tanzania (JET): Dar es Salaam, dissemination of environmental news, investigation on environmental deterioration, provision of education, arising awareness among the people and the state at large.

¹⁶⁵ This information was provided by the Government of the United Republic of Tanzania to the fifth session of the United Nations Commission on Sustainable Development. Last Update: 2009 .under the heading. The Institution Aspect of Sustainable Development in the United Republic of Tanzania.

¹⁶⁶ Mboti Amani Mwikwabe (2011)The Sustainable Livelihood and Displacement: Case of Artisanal and Small-scale Gold miners in North Mara A Research Paper

Research Oriented: Centre for Energy, Environment, and Science & Technology (CEEST): Dar es Salaam, research on energy, environmental science and technology issues, natural resource use and management, etc.

Economic & Social Research Foundation (ESRF): Dar es Salaam, research on economic, social and development issues. Research on Poverty Alleviation (REPOA): Dar es Salaam, conducts research on the informal sector, employment trends, poverty alleviation, environment and development trends. Community Based NGOs; Pollution Control Association (POCA): Dar es Salaam, collection of garbage.

3.5 Conclusion

The matter of having a safe clean and healthy coastal environment can be contributed by both the international laws, (conventions, agreement, protocol and declaration) and the municipal laws, if the two systems of laws can be enforced well. If that can be done by the international community as well as municipal governments, the world will witness reduction of poverty, growth of economy. This will be possible as the law will safeguard the natural resources present on environment, by prohibiting all forms of environmental degradation.

It should be born in mind that having good laws alone without its good system of enforcement is as good as not having them at all. Thus it is the duty of international community to codify all the environmental laws, for them to have a uniform applicability and the enforcement on one hand, and the municipal governments must ensure that the mechanism of their enforcement are effective to protect and safeguard the environment. this will remove the essence of having a good number of legislation and conventions locked up on offices while nothing is helping to safeguard the environment.

CHAPTER FOUR
FINDINGS AND ANALYSIS OF
COASTAL ZONE MANAGEMENT IN TANZANIA

4.1 Introduction.

This chapter presents the findings of the study in relation to the objectives of the study. It presents the findings in relation to the hypothesis formulated and tested. The said findings are the result of the field work which was carried in order to assess the international and municipal laws in the management and protection of the coastal environment a case study of Tanzania.

The chapter begins by looking into the findings which were collected in different offices as it is indicated in the methodology. And the chapter makes an analysis of the efficiency of the laws in the management of the coastal environment where challenges and problems are considered.

4.2 Findings of the study

This part of the report presents data collected from various sectors dealing with environmental matters; namely Vice President Office, Division of Environment, National Environmental Management Council (NEMC), Non-Governmental Organisations (NGO's), Lawyers Environmental Action Team (LEAT), ENVIROCARE, Legal and Human Rights Centre (LHRC)], Tanzania Women Lawyers Association (TAWLA). Journalist Environmental Team (JET) also the findings from NAVY of Tanzania Peoples Defence Forces (TPDF).

The chapter presents findings from fishermen and from various people,¹⁶⁷ who were interviewed in order to know whether they are knowledgeable about the laws and

¹⁶⁷ Mr Bakary Lyeyemam and Julius Mhando the Businessmen at Ferry area in Dar es Salaam: Mr Mkumbi the Advocate & Legal officer for TPDF Naval Forces. Located along the Dar es Salaam coastal area at Kigamboni., and Mr Challamila the Legal officer of Defense Forces Head Quarters at Dar es Salaam. In exclusive interview with the researcher, in Dar es Salaam on 22 January 2012.

conventions dealing with the coastal zone management. This part also analyses, codifies, tabulates, and present data collected through questionnaires and interview in order to testify the hypothesis of the study. While collecting data ethical consideration was considered, where the respondents did not want their name to be disclosed, the researcher complied with their demands;

4.2.1 Data Collected from the office of the Vice President; division of environment

The administration of environment in Tanzania has been placed under the office of the Vice President where there is a division of environment. There is a division of environment which is given a ministry. The minister therefore is responsible for articulation of policy guidelines necessary for the promotion, protection and sustainable management of environment.¹⁶⁸ The minister has the powers as provided for under section 77 and section 80. The ministry was supplied with the questionnaire which comprised both objective questions and open ended questions. Some of these questions were as follows

The first question was *do we make environmental Impact Assessment in every development project that is likely to have adverse impact to environment in Tanzania?* It is one of the principles in the management of the environment that before any activity is carried an impact assessment must be done to know the effects of the program to the environment. The officer in charge said without the impact assessment much destruction to the environment would have been witnessed. However the officer said many programs must be regularly checked in order to know the effects of the said programs.

Regarding compliance with other principles namely polluter and precautionary principles the officer said, on the case of polluter principle, although the principle has been stated in the law their utility on the management of the environment has not brought much impacts. The officer said lack of personnel and financial capacity make it hard to enforce the principles. He went on saying it is very difficult to prove lack of

¹⁶⁸ S.13 (1) of Environmental Management Act.2004

precautions and also the quantification of the price to pay after polluting the coastal environment. It is evident that much of the coastal environment have been polluted however there is little effort that has been shown to make the polluters pay for the wrong committed.

The second question was *does the present environmental legal regime in Tanzania provide enough atmospheres to the management of the coastal environment?* The management of the environment has been the concern of the Government since 1980s the officer said. There are various laws and regulations have been put in place to regulate a particular problem. One and most important area that has been left is the coastal environment. The analysis of the laws concurs with the statement of the officer. Many laws show that the efforts to manage the environment are in relation to either the land or the ocean. The ocean has been used as a dumping place of most of industrial waste and sewage from homes and hospitals these sewage and waste are deposited on the coastal areas therefore destroying living organisms which are found in the coast. The officer concluded that the present legal regime has not properly and specifically addressed the coastal environment.

The other question was *does Tanzania comply with the international conventions that deal with the protection of the environment? And has Tanzania ratified and implements all the international conventions aimed to protect the environment?* There are so many conventions, treaties, protocols and agreement that the international community has entered in order to protect the environment these conventions, treaties and protocols cover the international community, regional and sub-regional level.¹⁶⁹

¹⁶⁹ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter , 1972...International Convention for the Prevention of Pollution from Ships, 1973,... International Convention for the Prevention of Pollution of the Sea by Oil,1954....International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties Intervention Convention, 1969...United Nations Convention on the Law of the Sea LOS Convention, 1982....Convention on Long-Range Tran boundary Air Pollution, 1979....Basel Convention on the Control of Tran boundary Movements of Hazardous Wastes and their Disposal, Basel, 1989. ...Bamako Convention Convention on the ban of the Import into Africa and the Control of Tran boundary Movements and Management of Hazardous Wastes within Africa, Bamako,1991....Convention on the Tran boundary Effects of Industrial Accidents,

However Tanzania has ratified some of these conventions.¹⁷⁰ Therefore it complies with the conventions that it is part of. Because under international law a country is bound only by the conventions which it has ratified (the principle of *pact sunt servanda*) unless the said conventions have acquired a customary nature a country will be bound despite not being a signatory of the international document. The question of coastal environment has not drawn attention at the international community as other areas of the environment have done. This can be proved by the fact that there is no specific convention that protects the coastal environment. Therefore Tanzania has not ratified any convention so far to deal with the coastal environment

Another question asked to the officer was *does Tanzania has any law specifically aimed to prevent the Trans-boundary pollution by ships, and other under water vehicles or marines activities which are contributing to deterioration of the Coastal environment? If the answer is yes: Does it play a positive role to protect the same.* Marine environment has been protected at the international community by the United Nations Convention on the Law of the Sea 1982 under part XII. This part covers pollution by the marine vessels that they cause on the Sea. Tanzania is a signatory of this convention therefore it binds all the vessels which cause pollution in the marine environment.

It has a Merchant Shipping Act, 2003 Act no 21 of 2003 a law that deals with the pollution within the marine environment. This Act covers pollution which is caused by ships in water as provided under part XIX of the Act.¹⁷¹ The Merchant Shipping Act prohibits emissions of dark smoke from ships for more than five minutes in an hour within limits of a port. To make sure the release of smoke is regulated Tanzania Bureau of Standards (TBS) may approve appropriate production processes which minimize air

Helsinki, 1992...Stockholm Convention Stockholm Convention on Persistent Organic Pollutants Stockholm, 2001.

¹⁷⁰ The African Charter on Human and Peoples' Rights of 1981., The Covenant on Economic and Social Cultural Rights of 1966., Bamako Convention on the Ban of the Importation into Africa and the control of Trans-boundary Movement of Hazardous Waste within Africa 1992., Rio Declaration 1992

¹⁷¹ Act number 21 of 2003 as provided for under section 369.

pollution for the purpose of issuing a standards mark. However the law is silent on the issue of the coastal environment.

The last question asked to the officer was in regards to the need of having another law. *Do you think it is necessary to enact a new environmental Act to protect coastal environment in Tanzania.* With the pending gap in the law the officer said it is not necessary to have a new law but the present EMA should be amended to have some provisions regulating the coastal environment. In this new amendment the law should stipulate the extent of the coast so that the demarcated area should be reserved for the betterment of the coastal environment.

4.2.2 Data collected from National Environmental Management Council (NEMC)

The researcher conducted scheduled interview to Mr Mnyere the legal officer of NEMC.¹⁷² Therefore making a research on this entity was crucial because of its concern to the environment. The legal officer was asked the following questions regarding the topic under the study.

The first question was, *your office has been mandated to make sure there is an observance of the laws in regards to the management of coastal environment; how far people have shown compliance to the law?* It is true that the council is an overseer of the environment as provided by the law; however there are so many challenges that the council face, such as lack of enough personnel to supervise all the environmental matters, the coastal environment not being an exception. There are also budget constraints which greatly affects the Council effectiveness. There are several efforts that have been carried by the council to make sure that there is compliance to the law, such of the efforts include the involvement of the local people within their communities.

¹⁷² It is a council that has been established under section 16 up to section 29. Its functions are provided for under section 18 and it has powers as stipulated under section 23 up to section 25, the council also can issue administrative orders as so provided for under section 151 this is a restoration order, prevention order section 195, protection order as per section 196, compliance order under section 198, cost order under section 199 and lastly the prohibition order under section 113. The council therefore is a very important organ in the management of the environment.

The protection of the coastal environment is vital for the well-being of both human beings and the marine life, *how does the council applies principles of environmental protection as envisaged under international law?* The council gets its mandate from the Government which signs and enters into international agreements. Therefore whatever the convention the government has ratified, NEMC uses it as its source of mandate. For example the council uses principles which emanates from the Rio Declaration such as precautionary principle and polluter pays principle because the government participated in the conference.

The third question was *in case there is non-compliance what the council does?* The council gives various orders regarding the extent of the problem for example if the problem is at its initial stage prohibition order is ordered as provided under section 113, prevention order as provided under section 195 and protection order under section 196 and in case the offender is found guilt the council orders him to pay as provided under section 196 of EMA.

Responding to the fourth question which was *is there any need to enact a new environmental management Act to deal specifically with the coastal environment?* On this the legal officer said, there is a need to enact a specific law to deal specifically with the coastal environment. According to him this law will be effective because it will be designed to deal with a specific matter. He added that this new law will put a demarcation as to the extent of the coastal environment and therefore ensure maximum protection of the area.

4.2.3 Data collected from Non-Governmental Organizations (NGO's)

Non-governmental organisations have played a great role in regards to both protection and management of the environment¹⁷³ with these roles the researcher supplied them with a questionnaire containing four questions. Their responses were collected from

¹⁷³ For example ENVIROCARE has been educating people along the coast the best way of conserving the environment and the best ways of using the coastal resources. On the side of LEAT it has been doing great in both doing researches and instituting environmental cases. On the side of JET their main role has been educating the mass by writing a lot about the environment.

seven returned questionnaires making a total of 70% because ten questionnaires were supplied to them.

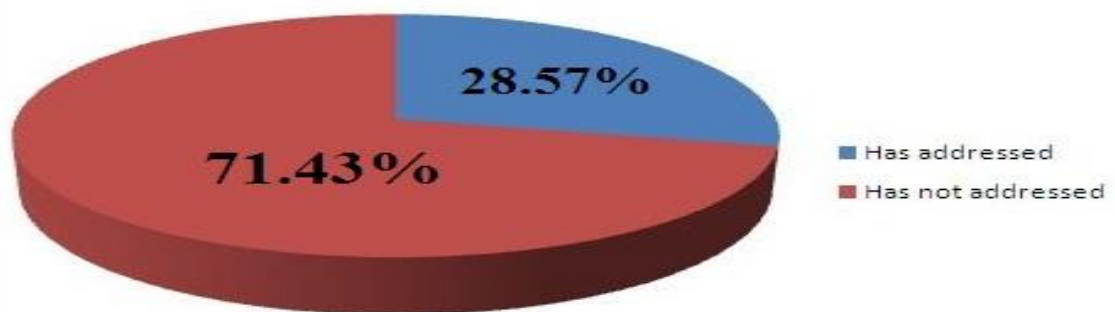
The first question was *do you think environmental laws present in Tanzania have addressed in precise terms the management of the coastal environment?* This question was responded by all the NGOs and from their response it was found that two responses making 28.57% said the law has covered and addressed the coastal environment. Their argument was the law dealing with the management of the environment has properly addressed all environmental matters. Where as five making 71.43% respondents said the law has not addressed the coastal environment in precise terms.

4.1 Table showing the responses on the question: Do you think environmental laws present in Tanzania have addressed in precise terms the management of the coastal environment?

Responses	Number of respondents	Percentage
Has addressed	2	28.57%
Has not addressed	5	71.43%

Source; Research findings March 2012.

4.1 Figure 4.1 Pie chart showing the responses on the question: Do you think environmental laws present in Tanzania have addressed in precise terms of the management of the coastal environment?



Source: Research findings March 2012

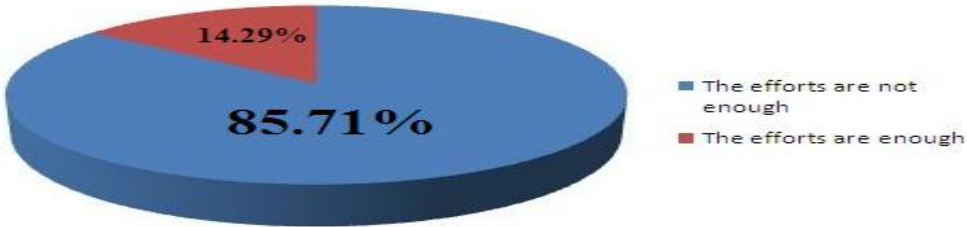
The second question was *do you think in your opinion the efforts carried out in the country to mitigate environmental problems addresses in the same scale as the coastal environment?* The speed of deterioration of the coast is less than the recovery of the same. This was the response of Antony (working with ENVIROCARE) and he said that is why they are educating the mass on the protection and the management of the coastal environment. This response was supported by six respondents. The remaining one said the efforts are horizontal therefore they cover every aspect of the environment. This response has been presented below.

Table 4; 2 showing the responses on the question: Do you think in your opinion the efforts carried out in the country to mitigate environmental problems addresses in the same scale as the coastal environment?

Response	Number of respondents	Percentage
The efforts are not enough	6	85.71%
The efforts are enough	1	14.29%

Source: Research findings March 2012

Figure 4.2 Pie chart showing the responses on do you think in your opinion the efforts carried out in the country to mitigate environmental problems addresses in the same scale as the coastal environment?



Source: Research findings March 2012

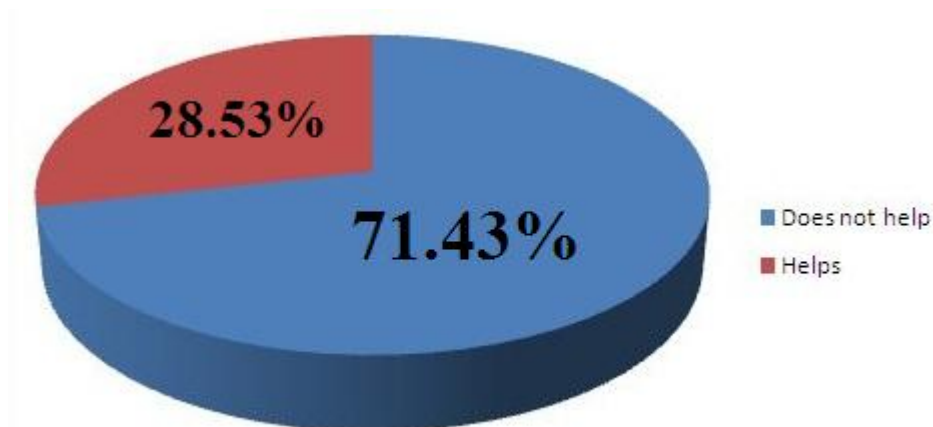
The enforcement of the laws in relation to the environment has been questionable; *do you think the enforcement mechanism helps in the protection of coastal environment?* This question brought the following responses. The legal officers said the enforcement of the laws in the court of laws have been so slow to an extent that some of the cases take long to be heard. For example LEAT has a case pending in the High Court for ten years, worse enough at preliminary stages. These findings are tabulated here under

Table 4.3 showing responses on the question, do you think the enforcement mechanism helps in the protection of coastal environment?

Responses	Number of respondents	Percentage
Does not help	5	71.43%
Helps	2	28.53%

Sources; Research Findings March 2012

Figure 4.3 showing the responses on the question do you think the enforcement mechanism helps in the protection of coastal environment?



Source: Research Findings March 2012

The fourth question was about the changes in the law relating to the coastal environment. *Do you think there is a need to have a new law relating to the management*

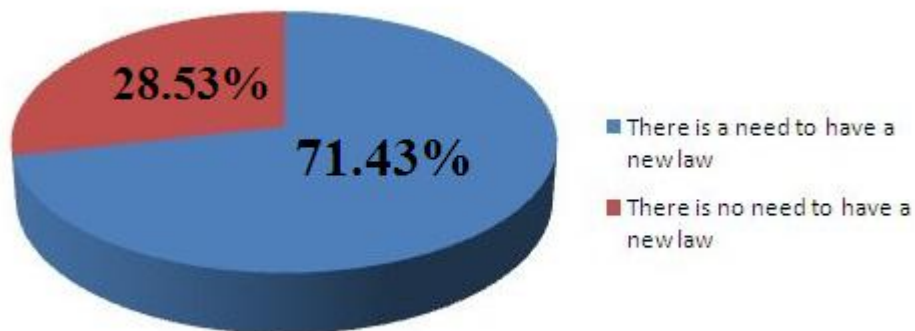
of the coastal environment? A new law to address specifically the coastal environment is needed because the present laws have not addressed the coastal areas with precise terms. This was suggested by Judith Mpira of TAWLA, this same position was concurred with four other lawyers therefore making a total of five respondents.

Table 4.4 showing the responses on question: Do you think there is a need to have a new law relating to the management of the coastal environment?

Responses	Number of respondents	Percentage
There is a need to have a new law	5	71.43%
There is no need to have a new law	2	28.57%

Source: Research findings March 2012

Figure 4; 4 Pie Chart showing the responses on question ; Do you think there is need t o have a new law relating to the management of coastal environment?



Source: Research findings March 2012

4.2.4 Findings from fishermen

These are stakeholders of the coastal environment because they depend on the sea for fishing and the fishing grounds are along the seashore, therefore the destruction of the environment have great impacts to fishermen. The researcher conducted some interview with ten fishermen on the interview intended to know whether the fishermen are aware

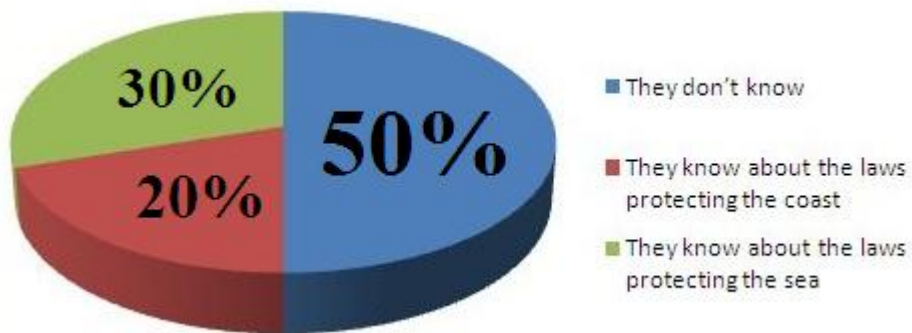
of the laws relating to the management of the coastal environment. Out of ten respondents five said they do not know about the laws, two said they know that there are laws because they were once charged with the use of dynamites and three said, they know the laws relating to fishing and not the management of the coastal environment.

Table 4.5 showing the responses of fishermen on the question: Whether they know the existence of laws relating to the management of the coastal environment?

Responses	Number of respondents	Percentage
They don't know	5	50%
They know about the laws protecting the coast	2	20%
They know about the laws protecting the sea	3	30%

Source: Research findings March 2012

Figure4.5 ; Pie chart showing the responses of fishermen on the question : Whether they know the existence of laws relating to management of coastal environment?



Source: Research findings March 2012

4.2.5 Findings from various people

The involvement of local people in the management of the environment is very crucial because they are both the beneficiaries of the environment. The researcher did an unstructured interview with various people ranging from the military officers, people found on the beach sunbathing, people who have their houses close to the sea in Dar es Salaam particularly Kigombani were interviewed to see whether they are bound by any law regarding the construction of houses close to the ocean. One of the respondents (Capt P, K Maganga¹⁷⁴) said the law is very silent regarding the coastal environment. He said some hotels are constructed near the sea and some of them extend to the sea threatening the natural environment. He further said some activities are done near the coast and affect the coasts at a scare which is not well appreciated.

The other respondents Mr Julius Mhando and Mr Lyeyemam, said they do not know if there is any law relating to the management of the coast because some people fell the trees which are vital for fish breeding grounds, while the other do dispose the waste randomly in places which are not allowed. They went on to say the most affected areas in case of falling trees is Bagamoyo area, These trees which are cut down are used as a source of energy in drying fishes and also they are used as construction materials for both houses and local fishing boats, whereby Dar es Salaam areas are said to be affected by pollution and illegal disposal of wastes.

Mr Mkumbo and Mr Chalamila who are the legal officers in the Tanzania Peoples Defence Forces, together said the present laws doesn't address the issue of coastal management, but rather they provide for protection of other part of environment like sea, maiming zones, and Forest based zones. They went on to say the coastal zone need to have a separate law to regulate this area against pollution and degradation, while providing for mechanism for its enforcement. On the other hand they said implementation is another weakness on most of the present laws in the country they

¹⁷⁴ A Civil Engineer of the Tanzania Peoples Defense Forces (TPDF) from Dar es Salaam.

suggested the need to change the institution framework in order to stabilize environmental matters.

4.3 The Analysis of coastal zone environmental problems.

After having seen the extent of the provisions of international instruments, and municipal laws on how the same has protected the coastal environment, together with the way findings has revealed what exactly is on the ground, the researcher wishes to address the problems that faces the coastal zone environment to the extent its management becomes difficult.

4.3.1 Industrialization as source of pollution.

The presence of industries in the coastal areas, has brought about adverse effect to environment than positive ones, this has been so for long time in various coastal cities.¹⁷⁵ The important and heavily fished reef zone close to shore is particularly vulnerable to pollution and silting. Oil and other industrial chemicals are the major pollutions threat to coastal ecosystems, oil owing to the heavy use of the tanker route along the East African coast.¹⁷⁶ On any way there are a good number of tankers in the region, many of them Very Large Crude Carriers (VLCCs). Slicks are brought in from spills in the open ocean by coastal currents, while operational discharges from ships and refineries add to the load, thus this waste are brought to the coastal zones by ocean waves.

In recent decades, the growth of industry has brought an increasing volume of effluents to coastal waters. The use of agricultural chemicals has continued to grow, and sewage treatment continues to be inadequate in many parts of the region.¹⁷⁷ This has brought more problems on coastal management due to lack of or poor sewage disposal, as the

¹⁷⁵ Raphael Mwalyosi, Ross Hughes and David Howlett, Introduction Course on Environmental Impact Assessment in Tanzania: Resource Handbook (London: International Institute for Environment and Development, 1999).

¹⁷⁶ <http://www.unep.ch/regionalseas/main/eaf/eafenv.html>/Polluting industries, the environment of Eastern Africa

¹⁷⁷R. Mwalosi and R Hughes, Introduction Course on Environmental Impact Assessment in Tanzania: Resource Handbook 34 (London: International Institute for Environment and Development, 1999).

findings above has revealed, that most of the provisions of law like Environmental Management Act, 2004, on the issue of impact assessment are not complied by actors of environment.

Despite the facts industrialization remains slow in the region in relation to other parts of the world, it takes place without proper environmental impact assessments legislative controls, leading to further pressure on the coastal environment.¹⁷⁸ Rivers, creeks and the sea have become dumping sites for industrial wastes. Industries of major environmental concern in the region include textiles, tanneries, paper and pulp mills, breweries, chemical factories, cement factories, sugar factories, fertilizer factories, and oil refineries.¹⁷⁹ This has been another source of failure in the whole process of protection of coastal environment.

4.3.2 Population.

A critical problem in the region is the rapid rate of human population growth.¹⁸⁰ Infrastructure has a hard time keeping up, with resulting strain on educational facilities as well as resources. Much of the population resides in the coastal areas, employed by the light industry located along the coast and others in the tourist industry. Most of the region's economies rely on agriculture and tourism which together contribute close to 50% of the gross domestic product.¹⁸¹

¹⁷⁸ Industrial sources of marine and coastal pollution in the East African region. UNEP Regional Seas Reports and Studies No. 7. UNIDO/UNEP (UNEP, 1982). Marine pollution in the East African region. UNEP Regional Seas Reports and Studies No. 8. FAO/UNEP (UNEP, 1982)

¹⁷⁹Tundu Antiphias Lissu, Environmental Impact Assessment of Foreign Investment Projects: A Study in the Law, Policy and Governmental Decision-making in Tanzania (Dar es Salaam: Lawyers' Environment Action Team, 1999).

¹⁸⁰ Associated Freshwater Environment in the Eastern African Region. UNEP Regional Seas Reports and Studies No. 167. UNEP/ Institute of Marine Sciences, University of Dar es Salaam/FAO/SIDA (UNEP, 1998)

¹⁸¹Environmental problems of the East African region. UNEP Regional Seas Reports and Studies No. 12. (UNEP, 1982). This summary of results of the 1981 expert mission to Eastern Africa is available from the online bookstore, Earthprint-website.

The average population density in coastal areas is about 80 persons per square kilometer, twice the world's average population density.¹⁸² Strong population growth in coastal areas has led to pollution and degradation of marine-ecosystems; similar effects and declining water levels affect inland water bodies.¹⁸³ The additional demands that high population density places on the coasts have meant that higher density is associated with increased risks to coastal & marine ecosystems.

When the population grows, some governments make greater investments in infrastructure such as sewer lines and sewage treatment plants that ultimately reduce levels of environmental contamination.¹⁸⁴ However this has not been the case to Tanzania coastal zones. On the other hand Changes in the size, composition, and distribution of human populations affect coastal regions by changing land use and land cover.¹⁸⁵ Fishing or harvesting, the destruction of mangroves, and pollution and sedimentation from human activities all have affected the coastal environment.

4.3.3 Tourism

Coastal areas worldwide are major destinations for tourism, which represents the fastest growing sector of the global economy.¹⁸⁶ Tourism dominates the economy of some regions and small island states; for example, tourism constitutes 40 percent of the economy of Tanzania, and is the country's number one source of hard currency.¹⁸⁷

¹⁸² United Nations System-Wide Earthwatch, "Oceans and Coastal Areas," accessed online at <http://earthwatch.unep.net/oceans/coastalthreats.php>, on June 20, 2010.

¹⁸³ Global environment facility concept/ Marine and Coastal Environment Management Project donated by world Bank to the government of Tanzania, to strenghern the fishing projects in coastal areas of Tanzania. 2011

¹⁸⁴ <http://www.prb.org/publications/policybriefs/rippleeffectspopulationandcoastalregions.aspx/Ripple>
Effects: Population and Coastal Regions

¹⁸⁵ Katrina Brown et al., Making Waves: Integrating Coastal Conservation and Development (London: United Nations Environment Programme [UNEP], 2009): 2; and UNEP, Global Environment Outlook 3 (London: UNEP, 2010): 188.

¹⁸⁶ Katrina Brown et al., Making Waves: Integrating Coastal Conservation and Development (London: United Nations Environment Programme [UNEP], 2009): 2; and UNEP, Global Environment Outlook 3 (London: UNEP, 2010): 188

¹⁸⁷ Jk Kikwete, speech when making announcent to the nation of the reshuffle of cabinet members on 4th may 2012.

Tourism can offer some environmental benefits, such as greater appreciation of the value of natural resources.

However tourism has harmful effects as well. It has led to unsustainable coastal development as infrastructure is built on the shoreline to accommodate tourists. In Dar es Salaam alone, official estimates say that 10,000 tons of waste is generated annually from tourism activities.¹⁸⁸ Yachts, charter boats, and cruise ships are major sources; they bring visitors to ports that often have inadequate collection systems for dealing with the solid waste discharged by the ships. Moreover, the ships provide few long-term economic benefits for the local population, since they do not employ many local citizens.

4.3.4 Lack of education:

Tanzania is one of the leading countries in the world in terms of biodiversity. With a broad range of habitats including marine ecosystems, savannah, forests, lakes, it also contains some of the largest remaining herds of wildlife in the world. Nevertheless, a combination of factors has resulted in increasing pressure on its natural resources and, consequently, on increasing environmental degradation.¹⁸⁹ These factors include rapid population growth, economic liberalization, influx of refugees from surrounding countries, poaching, reliance on firewood, and competing demands on natural resources among agriculture, tourism, mining and other sectors.

Most of people in the coastal region have no either proper education on how to keep their environment or they endanger it by deliberate intentions, due to the typical reliance on environmental for survival.¹⁹⁰ This is the reason for problem of deforestation in search for energy is diminishing the coastal forests. Likewise, pollution of water, and

¹⁸⁸UNEP, "Tourism's Three Main Impact Areas" (Oct. 9, 2011), accessed online at www.uneptie.org/pc/tourism/sust-tourism/env-3main.htm, on Aug. 14, 2011.

¹⁸⁹Irma Allen Bruce K. Downie (1999) Green COM Environmental Education and Communication Project U.S. Agency for International Development This document was prepared for USAID by the Environmental Education and Communication (GreenCOM) Project.

¹⁹⁰Francis, J. and Bryceson, I. 2001. Tanzania coastal and marine resources: Some examples illustrating questions of sustainable use. In: Ahmed et al. 2001. Lessons learned: Case studies in sustainable use. IUCN. pp 76 – 102.

improper disposal of waste materials has reflected lack of environmental education. That people should be informed of the major ways of keeping the coastal environment clean for sustainability.

4.3.5 Corruption

Corruption is a feature of African governments. It is said to permeate to the highest echelons of government in most African countries.¹⁹¹ In Tanzania, corruption has been decried at both national- and local-government levels in recent years; corruption has taken root in Tanzania and manifests itself across the social fabric, involving the leaders and people of all walks of life.¹⁹²

One oft-cited definition characterizes corruption as “behavior which deviates from the formal duties of a public role because of private-regarding ... pecuniary or status gains; or violates rules which govern the exercise of certain types of private-regarding influence”.¹⁹³ Corruption encompasses outright theft, embezzlement of funds, other appropriation of state property, nepotism, favors to personal acquaintances, and abuse of public authority and position to exact payment and privileges.¹⁹⁴ The extent of corruption in urban government in Tanzania is not well documented, but corruption is often cited and decried.

Manifestations of corruption include embezzlement of funds, over-invoicing, dubious land-management and tender-awarding practices, exaction of payment for services rendered or for granting licenses, and exaction of payment to condone malpractices.¹⁹⁵

¹⁹¹ Harsch (1993) international Handbook on Economics Corruptions at page 247. See also African Development Indicators 2010, at page 23, see also Between Morality and Law: Corruption Anthropology at page 143.

¹⁹² According to Mwapachu (1995) Problems of Urban Authorities. He mentioned that Corruption, Poor quality of Councilors and Citizen apathy as major problems with Urban Authorities failure to act as required by law and procedures of public offices.

¹⁹³ See Nye (1967), Handbook of Global Research and Practice in Corruption at p 190. See also Syndromes of Corruption: Wealth, Power, and Democracy at p. 11 and p.

¹⁹⁴ See United Nations report on Corruption of 1990-2010 as a continuous problem in most African countries.

¹⁹⁵ Supra note 28. Tanzania, U.R. (1996) Presidential Commission of Inquiry against Corruption: Report on the Commission on Corruption, Vols. 1 & 2.

The coastal environmental problems have never been exempted from corrupt practices. There are lot of plots and pieces of land in coastal zones which have been allotted to business people political leaders, and relatives of peoples in authorities, in the umbrella of investors.¹⁹⁶ Whereby hotels, residential areas, and dumping sites, have taken place in reserved coastal zones, without prior to the requirement of environmental impact assessment.

4.3.6 Poor planning and policies

Inappropriate policies, changes in demography and technology, and weak institutions and governance have exacerbated over fishing.¹⁹⁷ Due to the low-lying nature of the coastal areas in the city, climate change and sea-level rise threatens the population, infrastructure and other socio-economic development in the coastal zone. Flooding and coastal erosion represent the major threats to the city.

This has been the results of having temporal or poor plans towards coastal problems.¹⁹⁸ A good example are the areas prone to floods including Msasani (bonde la mpunga) about 60ha mixed residential, commercial and institutional settlements; and is one of the fastest growing settlements in Kinondoni municipal despite being flood prone, Msimbazi valley, Jangwani, Mikoncheni (the problem exacerbated by diversion of natural storm water drainage).

Most of government official especially on municipality of Dar es Salaam they are not aware of the laws that govern the environmental issues, including the issue of Environmental Impact Assessment. This has been another example of poor planning on the part of decision makers. This can be seen by the presence of several governments

¹⁹⁶Rebecka Isaksson and Ida Sigte Allocation of Tanzanian Village Land to Foreign Investors Conformity to Tanzania are Constitution and the African Charter on Human and Peoples' Rights.

¹⁹⁷ Global Environment Facility Concept/ Marine and Coastal Environment Management Project donated by world Bank to the government of Tanzania, to strengthen the fishing projects in coastal areas of Tanzania. 2011

¹⁹⁸ Michael J Casmiri (2008) Culture & The Changing Environment, Uncertainty, Cognition, and Risk Management in Cross-Cultural Perspective. In Tanzania Coastal Areas.

owned multistory buildings which were built in Dar es Salam between 2005 and 2009 without having EIAs done prior to their construction.¹⁹⁹

These include: (i) The National Tourism College that took large part of the only remaining botanical garden in Dar es Salaam. (ii) the headquarters of the Ministry of Natural Resources and Tourism, built along a very busy road and too close to one of the Dar es Salaam squatters. (iii) the expansion of the National Museum in Dar es Salaam. (iv) the Headquarters of the Prisons Departments. (v) the controversial Bank of Tanzania Twin Towers and related structures around the Ministry of Finance, and (vi) the Headquarters of the Minister of State, President's Office – Public Service Management are some of the government multi-storey buildings implemented without EIAs a required by the environmental law.²⁰⁰

This reflects the lack of sustainable policies and plans to have a safe coastal environment for residences, industries, Public offices and business areas that are found within the coastal areas.

4.3.7 Lack of manpower/personnel

The issue of lack of funds on the part of government has resulted to the problems of shortage of personnel to deal with environmental problems especially on coastal environment.²⁰¹ The corporations dealing with chemicals' management claim that environmental protection laws have placed too much responsibilities and demands on

¹⁹⁹ Huseein Sosevele (2011) Governance challenges in Tanzania's environmental impact assessment practice. Institute of Resource Assessment, University of Dar es Salaam, P.O.Box 35097, Dar es Salaam, Tanzania.

²⁰⁰ Huseein Sosevele (2011) Governance challenges in Tanzania's environmental impact assessment practice. Institute of Resource Assessment, University of Dar es Salaam, P.O.Box 35097, Dar es Salaam, Tanzania

²⁰¹ Stated by the Legal officer on the Vice President Office Environmental Division, See also on findings on the vice President Office above, where lack of man power has been reported as one of the problem which hinders the enforcement of environmental laws.

their business of environmental management, such that it is difficult to comply where man power is so scarce.²⁰²

This is very common in both developed and developing countries. In developing countries, however, the compliance with the laws and regulations is the concern of the top management of the corporations, while the line-workers have little say, due to lack of environmental departments within these corporations. This tendency jeopardizes the initiatives of the manpower used in hazardous environment. However this is quite deferent from developing countries, where the problem of lacking skilled personnel to manage the coastal environment seems to be pre-dominant.

4.3.8 Weaker environmental laws and lack of enforcement

While industrialization is growing faster in Tanzania (2.8% average), the coastal environmental management are not getting the same efforts due to a lack of priority setting, old legislation, lack of data and limited research.²⁰³ Beside the current legal and judiciary efforts by the government, the effectiveness of the environmental protection policies and legislations, is often low in practice for developing countries, mainly due to lack of political will to enforce the regulations made.²⁰⁴ The issue of lack of, or poor implementations of presents laws has witnessed, several Environmental Impact Assessments (EIAs) being conducted since the Environmental Management Act Cap 191 came into force.²⁰⁵ However, it has been observed that the increasing number of EIAs did not correlate well with the level of effectiveness and quality as required by

²⁰² Masanja, E., “Chemical Management Information Access”, in Workshop on “Promotion of Public Awareness on Chemicals Management”, organized by the Environmental Engineering Unit, UDSM, Granted by Dutch Government/MHO, 25th June 2002.

²⁰³ Monyo, R.A., “Situation Analysis on Occupational Health and Safety in Tanzania”, African News Letter on Occupational Health and Safety, Supplement 1/1999, Proceedings of the Regional Symposium on Occupational Health and Safety, S.Lehtinen et al., (Eds.), Marangu, Tanzania, 13-15 December, 1998.

²⁰⁴ SAMWEL V. MANYELE (2003) a research paper on PROPER MANAGEMENT OF CHEMICALS: A TOOL FOR IMPROVING ENVIRONMENTAL AND OCCUPATIONAL HEALTH IN TANZANIA Department of Chemical and Process Engineering, University of Dar es Salaam, Tanzania.

²⁰⁵ Huseein Sosevele (2011) Governance challenges in Tanzania’s environmental impact assessment practice. Institute of Resource Assessment, University of Dar es Salaam, P.O.Box 35097, Dar es Salaam, Tanzania

Environmental Management Act of 2004 (EMA). Most of decision makers,²⁰⁶ in Dar es salaam as case study, seems to lack awareness of the EMA requirements for EIAs as a tool of coastal environmental management.²⁰⁷ Awareness on legal requirement was low among decision makers at the level of the municipality where most decisions on development projects took place. This lack of knowledge is indeed a governance issue that is closely related to lack of accountability on the part of the authorities especially the failure to implement the present laws.

The responsible officers in the municipalities are expected to know and be aware of the various laws as well as how to implement them effectively, because these are their guiding tools in their daily operations. The authorities are expected to implement these laws as part of the Government collective responsibilities. Giving such excuses reflects badly on the part of the government officers, who are expected to know more than the ordinary citizen. The making of the environmental law involved various stakeholders including the municipal leaders; therefore, such a situation is an indication of the governance challenges in the process of managing coastal environment in Tanzania.

4.3.9 Urbanization

Many of the world's coasts are becoming increasingly urban. In fact, 14 of the world's 17 largest cities are located along coasts. Eleven of these cities, including Bangkok, Jakarta, and Shanghai, are in Asia. In addition, two-fifths of cities with populations of 1 million to 10 million people are located near coastlines.²⁰⁸ The urbanization of coasts brings with it coastal development (including demands for fresh water and sewage treatment) and damage to coastal ecosystems.

²⁰⁶ For example, in all the municipalities in Dar es Salaam, up to 40% of those interviewed admitted to have no basic knowledge of the Environmental Management Act and its requirements on EIAs for various projects. See also Huseein Sosevele (2011) Governance challenges in Tanzania's environmental impact assessment practice; at p 4-5.

²⁰⁷ Ibid Huseein Sosevele (2011) Governance challenges in Tanzania's environmental impact assessment practice. Institute of Resource Assessment, University of Dar es Salaam, P.O.Box 35097, Dar es Salaam, Tanzania

²⁰⁸ John Tibbetts, "Coastal Cities: Living on the Edge," *Environmental Health Perspectives* 110, no. 11 (2009): 674.

Urbanization has a deleterious effect on mangroves. Mangroves, forests of salt-tolerant trees and shrubs that grow in the shallow tidal waters of estuaries and coastal areas in tropical regions, line about 8 percent of the world's coastlines and 25 percent of the world's tropical coastlines, where they absorb the impact of storms and offer nutrients for most of the world's marine life.²⁰⁹ On the other hand Mangrove loss was strongly correlated with the growth of cities and ports.²¹⁰ Mangrove forests are also cleared for timber and to make room for fish and shrimp ponds, human settlements, and agricultural and industrial development. Kenya, Liberia, the Philippines, and Puerto Rico, have lost over 70 percent of their mangroves.²¹¹

4.3.10 Coastal degradation and erosion

Human encroachment and activities such as animal husbandry and agriculture are rapidly degrading the coastal environment of Tanzania, resulting in deforestation, destruction of mangroves and disappearance of other vegetation; a decline in soil fertility, and the death of wildlife. Marine resources are directly threatened by these activities.²¹² Mangroves were once common in sheltered bays and estuaries, providing shelter to many important fish species and prawns. They are now threatened by intensive cropping to provide firewood, poles, tannin, medicinal products, paper pulp and timber, and to open up new space for aquaculture and salt production. Mangrove swamps are also threatened by fluctuations in the amount of fresh water and sediment reaching them caused by upstream hydraulic works, and indirectly by destruction of protective reefs poles, firewood and by large-scale clearing for salt production.

Coral reefs have been damaged by excessive siltation resulting from poor agricultural practices, deforestation along riverbanks, and the dredging and dumping associated with harbor development. Many were damaged by fishing with dynamite and poison,

²⁰⁹American Association for the Advancement of Science (AAAS), "Mangroves and Estuaries" (2000), accessed online at <http://atlas.aaas.org/index.php?part=2&sec=eco&sub=mangroves>, on Aug. 15, 2011.

²¹⁰A study by the U.S.-based World Resources Institute.

²¹¹WRI, World Resources 2000-2001: 69-79

²¹² Marine and coastal area development in the East African region. UNEP Regional Seas Reports and Studies No. 6. UN/UNESCO/UNEP (UNEP, 2010).

especially before these methods were outlawed in part of the region. Tourists collect coral as souvenirs. More recently the bleaching of corals has become a severe problem.

The shoreline in most of the region is receding as a result of coastal erosion: the shoreline retreat over parts of Tanzania has been estimated at between three and five meters per day. Barrier islands are particularly vulnerable to rising sea levels.

4.4 Testing of hypothesis

The first hypothesis was that, both the international conventions and municipal laws have not properly protected the coastal environment; from the research and findings it has been revealed that to a big extent it is true that the international conventions as well as municipal laws has not addressed in precise the protection of coastal environment in Tanzania, as the examination of every convention and Acts of parliament of Tanzania shows the gape on the coastal environment protection of which need to covered.

The second hypothesis which guided this work was that, there is a need to have an Act which will regulate coastal environment in Tanzania; under this aspect, the findings and analysis shows that, the present laws, have addressed environmental problems in general senses, of which some important aspects like coastal environment has not been given the wait it deserves, as result its management becomes a problem, thus the need to have a separate legislation which will govern the coastal zone management seems to be of paramount important.

The third hypothesis which guided this research was that, the institutional framework for the management of environment is weak and thus inefficient. As has been addressed in findings and analysis the institution for management of environment has been placed under the vice President's Office, which seems to be occupied by many duties to the extent that the environment issues are not provided with the weight it deserves, thus it is seen to be inefficient, to the extent that there is a need to have a separate ministry or institution to deal with environment matter parse, including the management of coastal zone environment.

The forth and last hypothesis was that; the environmental principles have not been utilized enough to protect coastal environment. The findings and analysis of this research has shown that there are good environmental management principles, like polluter pays principles, sustainable development, and precautionary principle, however its utility or application in Tanzania especially on coastal zone management is still a big problems. Thus the need to utilize these principles has been seen to be necessary, should the need to have safe and sustainable coastal zone environment is needed.

4.5 Conclusion

This chapter presented the data which were collected from different Governmental institutions namely MEMC, TPDF, VPOED, whereby on Non Governmental organizations like LEAT, TAWLA, ENVIROCARE. But also to individuals like Lawyers, Engineers, and Fishermen. The data were collected through questionnaires and scheduled interviews. The data were coded and analysed and presented into tables and graphs. As can be seen all the questions that were asked by the researcher had direct bearing to the hypothesis that guided this research.

The question of research has lot of positive and negative challenges, on positive once; peoples that were interviewed provided support and were co operative to the appreciable extent. However on negative challenges some official from the vice President office were seen to be so busy or not interested to co operate with the researcher. But also some scheduled interviews were not completed due to some excuse from those officials. However it appreciated that the research has managed to get enough data to enable accomplishment of this work.

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS AND CONCLUSION:

5.1 Introduction.

This chapter presents the summary of the entire work, to enable the reader to grasp what this work is all about from the start up to this juncture. This chapter also is mainly aimed at providing a recommendation to whoever has been named or mentioned to have contributions to the environmental protection specifically coastal environmental, or the environment in its totality. Thereafter this chapter provides a short but comprehensive remark to mark the end of this research.

5.2 Summary.

This research deals with the assessment of International conventions and municipal laws in relation to the protection of coastal environment, and is basically refers to the coastal state Tanzania being inclusive; of which is the case study of this research. This area (coastal zone) is of great important to all starting with marine Transport facilities, fishing zone, inhabitation, industrial sites, recreation sites, tourist sites, as well as dumping zone of the domesticity and industrial waste.

Thus their protections are necessary to insure that, their use provide a sustainable manner, which can safeguard the future generation, to utilize the coastal environment in future. Therefore any state that borders the coast must insure that it protect this area in accordance with the environmental principles.

At international level there good number of instruments dealing with environmental protection, however the international conventions being soft laws, hinders its implementation at individual states capacity. This is on the ground that either the state isn't a part it. or the state does not feel to implement it because it affects its personal

interest, as should they opt to implement the particular instrument. The issue of implementation has been a notable weakness at international level in the aspect of coastal zone management.

In the municipal level, despite the presence of good environmental laws in Tanzania, the issue of implementations has been a notable weakness as well. But also the present laws have not addressed in precise the protection of coastal zone environment, of which now necessitate the need to have a separate enactment, which can ensure coastal management. Most of laws addresses the environmental problems in general senses, and not in particular of which becomes vague to eradicate the specific problems.

The present environmental principles, just to mention polluter pays principle, precautionary principle and the principle of sustainable development, shows that on their own cant manage to protect the environments from degradation, it is until when there is enactment to safeguard them, for them to be effective and be useful to environmental protection. This shows how important there is a need to have a separate law to regulate coastal zone management upon which environmental principles will be enshrined on.

Tanzania like other developing countries, has good environmental policies, however the situation of poverty hinders the implementation of those policies, because the most population of the country depend sorely on environment for as source of energy, but also other activities which are not environmental friendly, like mining, gas extractions, industrialization, has made more difficulty on the side of the government to implement the present environmental policies.

The importance of this work pushed the researcher to visit private individuals, various governmental, Non Governmental Organization and Institutions which have bearing on environmental matters, but also the authorities who are capable of influencing policies or changes, to the present environmental law and institutional flame work. This was done in Dar es Salaam area and some few parts of Coast region. Upon which the respondents

were supplied with questionnaire, while others were interviewed through schedules interviews.

This research gained more of its data from various institutions, starting with the Vice President Office, Environmental Division (VPOED) located in Dar es Salaam, different lawyers found in Dar es Salaam and Cost region, Fishermen, Engineers from Tanzania Peoples Defense Forces, (TPDF). Lawyers Environmental Action Team (LEAT).

These data which were found from those institutions above were, scrutinised and analysed whereby only useful data were taken, coded and tabulated categorically. Thereafter these data were made into tables; which the researcher presented them into meaningful graphs. Of which the researcher himself and the reader can easily taste and justify the bearing of the hypotheses guiding this work.

This research was guided by four hypotheses *that, both the international conventions and municipal laws have not properly protected the coastal environment.* The second hypothesis was *that, there is a need to have an Act which will regulate coastal environment in Tanzania.* The third hypothesis was: *that, the institutional framework for the management of environment is weak and thus inefficient.* The fourth and last was: *that, the environmental principles have not been utilized enough to protect coastal environment.*

The first hypothesis was supported by Vice President Office Environmental Division by 75% and the NGO of ENVIROCARE, by 71%. Upon which the question of coastal management has not drawn attention of the international community as the other area of the environment has done; said the legal officer on the Vice President Office Environmental Division, he went on to say this can be proved by the facts that there is no specific convention that deal with the protection of coastal environment. That being the case therefore Tanzania has not ratified any convention so far to deal with the coastal environment. The same position was provided by the officer of ENVIROCARE, said

that the coastal environment has been left in isolation as has not been addressed by international conventions neither the municipal laws in the country.

On the second hypothesis; gained support from NEMC 100%, TAWLA, 71.43%. Officer from NEMC affirmed the need to have a new law to govern the coastal environment; he said that the law will be effective because it will be designed to deal with the specific matters. He went on to say the new law will probably put a demarcation as to the extent of the coastal environment and therefore ensure the maximum protection of the area. The legal officer from TAWLA said that there is a need to have a new to address specifically the coastal environment because the present laws have not addressed the coastal areas with precise terms. This was suggested by Judith Mpira of TAWLA, this same position was concurred with four other lawyers therefore making a total of five respondents.

The third hypothesis proves to be an alternative, to the big extent by NEMC, TAWLA, LEAT, and other LAWYERS, that there is a need to have a separate institution to deal with management of coastal environment. the present one which has been placed under the Vice President Office, seems to be ineffective, this has been seen to be caused by many other duties which the office has other than the environment; thus the need to have a ministry that will deal with environment seen to be of necessary.

The fourth and last hypothesis, proves to be an alternative supported by the Vice President Office Environmental Division, LEAT, that these principles, polluter and precautionary principles the officer said, on the case of polluter principle, although the principle has been stated in the law their utility on the management of the environment has not brought much impacts to environment in the country especially to coastal zones environment. The officer said lack of personnel and financial capacity make it hard to enforce the principles. He went on saying it is very difficult to prove lack of precautions and also the quantification of the price to pay after polluting the coastal environment. The officer from LEAT added that it is evident that much of the coastal environment has

been polluted however there is little effort that has been shown to make the polluters pay for the wrong committed, therefore the need to have a law which will make these principles more usefully or utilized to the maximum is necessary.

5.3 Recommendation

5.3.1 The establishment of international convention on coastal zone management

In the present time, there is no specific international instrument that deals with coastal zone management, which brings many coastal issues to be left unaddressed, just like at the municipal level, but one can see that other areas like sea, Land Air and outer space has international instrument that addresses their management or their protection unlike the coastal zone area. Therefore it calls the need to have this instrument to address in precise terms on how to protect coastal environment as such. The need to have this instrument is not at the international level alone but this will need to go down to regional, sub regional and municipal level. Upon which coastal state will have to adopt it, for them to implement on their municipal laws Tanzania being one.

5.3.2 Constitutional amendments;

The Constitution of United Republic of Tanzania does not address in precise the terms of environmental protection. *Firstly*; the constitution should be amended to include environmental rights, namely right to clean and safe environment, Right to clean water. The only provision which is found in the constitution is not enough to cater the basis of overall protection of environment and sustainable utilisation of natural resources.

Secondly; it must establish the constitutional ministry of environment that will make sure it deals with environmental matter Parsee, unlike now where the environmental matter are placed under the office of Vice President, of it becomes difficulty to give the required weight to environmental problems as the office has been empowered to deal with other matters like Union matters, and Good governance.

The independent ministry will ensure much of strong budget and man power which has been addressed by the office of Vice President as factors for failure to enforce and

implement the present environmental laws and policies. This is because any ministry has its own budget and power to recruit employees.

5.3.3 Enactment of Coastal zone management act:

There is a need to have an act to address and regulate coastal zone environment, than what has been covered by the existing laws which has failed to address in precise terms the management of this area. This Act must provide detailed provisions on how the coastal environment should be protected or utilized. The act must also provide the extent limit of measurement of the coastal zone environment. The act must also provide the conditions to be met should one wish to invest or construct any installation within the area of coastal zone.

The environmental principles must be reflected within the act, and the mechanism on how to enforce and implement those principles must be insured by the act as well. But also the act must establish a team to safeguard, and monitor the coastal zone areas, against illegal disposal of waste, pollution, illegal construction of installations.

5.3.4 Amendments of existing laws:

It is of paramount important to amend other Laws as has been addressed under chapter three, on legal and institution framework, with the view to includes environmental principles like polluter pays, precautionary principle, and the principle of sustainable development, especially to all laws that have bearing to environmental matters. A good example being the environmental management Act of 2004, to include provisions of coastal zone management. These laws must also contain the mechanism on how to pursue the environmental rights as such.

5.3.5 Strict Application of environmental laws by the Judiciary:

It is recommended that the present courts from international lever, as well as municipal court to apply the environmental laws in a strictly manner as it does to other criminal cases like genocide terrorism and crimes against humanity, because even those who absconds environment laws by degrading the environment brings hardship for the future

generation, thus to cater it, it is important that court should impose tough punishment, to any one who are found guilty of environmental wrong doing.

5.3.6 Establishment of sectoral environmental institutions:

This will provide or ensure a clear role to play on the aspect of coastal zone management. This institution must be empowered to check and balance the extent of pollution dumping of waste, monitor the enforcement of the laws present which protect the coastal zone environment. This organ must work under the supervision of the supreme national organ which is NEMC. By doing so it will be easily to safeguard the coastal area and any other sectors like forest sector, mining sector, fishing sector and the like, which all of them will be controlled by NEMC.

5.3.7 Establishment of environmental funds.

The recommended fund should be placed under the National Environmental Management Council (NEMC), The sources of this fund should come from government budget, as well as the fines that are collected from anyone who has found in default of absconding the environmental laws, polluters or illegal dumping of waste, deforestation and other wrong which affect environment in one way or another.

The rationale of this fund is nothing but to cure and rehabilitation of affected areas, supporting the education to the public on how to protect the environment, cleanliness, reforestation, environment publications, as the way of assisting the government to control the environmental problems. This fund must be reflected within the Environmental Management act EMA 2004, and the recommended coastal zone management act.

5.3.8 Future steps in addressing population issues in coastal regions.

Managing coastal areas requires concerted multi-sectoral efforts by government institutions at all levels, the private sector, and community groups, as well as sustained political support. Achieving a balance between top-down legislative authorities and bottom-up community involvement requires understanding issues and maintaining

strong links with stakeholders in the area. Efforts to balance local interests with national legislation need to consider the socioeconomic context of coastal populations and what role demographic patterns play in the region. Policymakers and program managers can take several steps to address and integrate population concerns into their coastal management efforts.

5.3.9 Establishment of environmental education from primary to higher learning institutions;

In order to have a sustainable and safe environment especially coastal environment, it is necessary that the environmental principles, laws, and management should be taught from the primary level to higher learning institutions, this will help the public to be aware on how to keep and protect the environment.

This is because most of people are not aware of the present laws that deal with the environment, thus education will awake the community on the best way to keep environment safe and health for the present and future generation.

5.4 Conclusion.

Poverty has been the most causation of environmental degradation in developing countries Tanzania being inclusive; most of people depend solely on environment for survival of income gains. This has resulted to deteriorations of the environment in the country and in any developing one. People living in villages depends on charcoal and fire woods as source of energy, since they can't afford to pay for electricity or gas which are the alternative source of energy. This has a big adverse effect to environment.

On the coastal zone, there is a poor planning of this areas, which has led to the most hotels to be constructed within this areas, without prior to impact assessment as required by law, indigenous also have taken some parts of these areas as residential areas, but also investors have taken this areas as industrial sites, there is not a clear cut of the area to be left as reserve for tourism or recreation cites. These areas also are mot safe as

playing grounds because they are taken as dumping sites by most polluting industries or domestic waste.

Most developing countries have not yet subscribed to the environmental principles, like Polluter Pays, and Precautionary Principle as their main environmental policy guideline. It has been pointed in this research that this is due to the poverty low income to the large number of the population of the country. Examples are large number of poor households, informal sector firms, and subsistence farmers who cannot bear any additional charges for energy or for waste disposal.

Thus by conclusion over this study: there is a need of dramatical change on the part of the Government and public attention in general, to put environmental matters of priority than other matters. This can be done by strengthening the political will and commitment on part of public officials, effective and comprehensive legal and institutional framework concerning environmental management, coastal management on one hand while. Providing environmental education on the other in order to insure the entire population safeguard the environment.

The government official should now isolate themselves from corruption and work faithfully in allocation of areas for hotels, construction of infrastructures, residential areas and tourism sites, this will ensure that the coastal zone is well safeguarded and safe and free from pollution or dumping zones.

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APPENDIX 1

QUESTIONNAIRE TO THE VICE PRESIDENT OFFICE, ENVIRONMENTAL DIVISION; (VPO)

Dear respondent Iam Christopher Elly Nsemwa a candidate from Mzumbe University Main Campus pursuing a Master degree in International Laws, (LLM-International Laws).doing a research titled “*Assessment of international Conventions and Municipal Laws in relation to protection of Coastal Environment in Tanzania: A case of Dar es Salaam.*” For the year of study **2010/2012.**

In accordance with the National Environmental Policy, 1997, one of the key instruments to attain or achieve the sustainable development was the Environmental Impact Assessment, Precautionary principle, as well as polluter pays principles of which if their implementation could be focused to, it could have brought the notable changes in the whole process of environmental protection, in Tanzania as provided by Section 7 (3) (c) and (d) of EMA.

Which provides that; In achieving the objective of this Act, every person exercising powers under this Act shall observe the principle that: (c) the precautionary principle, which requires that where there is risk of serious irreversible adverse effects occurring, a lack of scientific certainty should not prevent or impair the taking of precautionary measures to protect the environment; (d) the polluter pays principle, which requires that any person causing adverse effect on the environment shall be required to pay in full social and environmental costs of avoiding, mitigating, and or remedying those adverse effects;

The significance of this Research is highly depends on your assistance, and for that regards I hereby request you valuable precious time, to respond to this questionnaires brought before you to the best of your knowledge.

On the other hand I do declare that all the information obtained will be for academic purpose only and not for any other business whatsoever.

I do thank you in advance.

“PART A”

PARTICULARS OF THE RESPONENT

Name:

Gender:

Age:

(i) 18- 30

(ii) 31-45 Years

(iii) 45 and above.

Occupation:

Address:

Date:

“PART B”

Directive instructions

- **Please put a *tick* for the right answer in the multiple choices questions**
- 1. Do we make environmental Impact Assessment in every development project that is likely to have adverse impact to environment in Tanzania?**
 - (a) Yes we do.
 - (b) No we don't do.
 - (c) I don't know.
 - (d) I am not sure.

 - 2. On your own views do you think this requirement of Environmental Impact Assessment if utilized fully it can bring Positive environmental protection especially on coastal areas?**
 - (a) Yes it can.
 - (b) No it can't help.
 - (c) I don't know.
 - (d) I am not sure.

 - 3. Do we have liabilities for a person or institution that pollute environment in Tanzania?**
 - (a) Yes we have.
 - (b) No we don't have
 - (c) I don't know.
 - (d) I am not sure.

 - 4. Does these liabilities provided are sufficient to cover loss when the pollution involved are the results of their defaults or toxic, poisonous, hazardous, and even harmful, substances to environment?**
 - (a) Yes they are enough to cover resulted loss.

- (b) No they are not sufficient to cover resulted loss.
- (c) I don't know if they sufficient to cover the resulted loss.
- (d) I am not sure.

5. Does the precautionary Principle utilized fully by the government as well as individuals in the whole process of environmental protection in Tanzania?

- (a) Yes it utilized fully.
- (b) No it is not utilized at all.
- (c) I don't know.
- (d) I am not sure.

GIVE OUT YOUR OPINION

6. Is the enforcement of polluter pays and precautionary principles are sufficient enough to assist protection of Coastal environment in Tanzania?.....

7. What do you think are the obstacles (mention at least four of them) for the utilization of precautionary principle as a tool of Coastal environmental protection in Tanzania?
 (i).....
(ii).....
(iii).....

8. Does the present environmental legal regime in Tanzania provide enough atmospheres to the management of the coastal environment?

9. Does Tanzania comply to the international conventions that deal with the protection of Coastal environment? If Yes or No, Explain how.

.....
.....

10. Has Tanzania ratified and implemented all the international conventions aimed to protect environment?

.....
.....
.....

11. Do you think it is necessary to enact a new Environmental Act to protect environment in Tanzania. If your answer is Yes, give a reason:

.....
.....

12. Does the fines collected from Polluters of Environment are utilized in the areas so affected by the Pollution? If Not where is the same being sent?.....

.....

13. Does Tanzania have any law specifically aimed to prevent the Trans-boundary pollution by ships, and other under water vehicles or marines activities which are contributing to deterioration of the Coastal environment? If the answer is yes: Does it play a positive role to protect the same.....

RELEVANT ASSISTANCE

Dear respondent, I hereby allow you to extend your intellectual opinion/ assistance which you think it has relevant contribution to this study of which a researcher may focus on, this may include written advice, criticism, and any other intellectual materials like books, Articles, Journals magazines, and other helpfully information to the study in general.

THANK YOU FOR YOUR APPRECIATED COOPERATION

PARTICULARS OF THE RESEARCHER:

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