UNIVERSITY OF NAIROBI

INSTITUTE OF DIPLOMACY AND INTERNATIONAL STUDIES

EAST AFRICAN COMMUNITY (EAC) INTEGRATION AND ENVIRONMENTAL MANAGEMENT.

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OCTOBER 2014.

A Research Project submitted in partial fulfillment of the requirement for the award of a Master of Arts Degree in International Studies at the University of Nairobi, Institute of Diplomacy and International Studies.

DECLARATION

I declare that this research project is my original work and has not been presented for a degree in any other university.

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ACKNOWLEDGEMENTS

I thank the Almighty God for strength and endurance that has seen me get this far. I also acknowledge the great insight, patience and support from my Supervisors, Prof Maria Nzomo and Dr. Wanjiku Kaniaru whose guidance made it possible to complete this work. To them, I pray for God's abundant blessings.

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ACRONYMNS

- ACODE- Advocates Coalition for Development and Environment
- EAC-East Africa Community
- EACSO-East African Common Services Organizations
- ENRM- Environment and Natural Resource Management
- KANU-Kenya National Union
- LEAT- Lawyers Environmental Action Team
- NEAP's-National Environment Action Plans
- NEMA-National Environment Management Authority
- NGOs-Non Governmental organizations
- OECD-Organization for Economic Cooperation and Development
- **RTA-Regional Trade Agreement**
- SPSS- Statistical Package for Social Sciences
- SWGs -Sector Working Groups
- USAID- United States Agency for International Development
- WTO-World Trade organization

ABSTRACT

Environmental problems associated with waste and emissions produced from various supply chain activities have forced organizations, facing competitive, regulatory and community pressures, to move towards greening their supply chains. A number of challenges frustrate efforts on environmental management. This research study sought to establish the effects of the EAC integration on the management of the environment. The study also sought to explore the environmental challenges facing East African region, to analyze the principles, norms, rules and decision making procedures within the East African Community that affect Environmental Management Practices, to evaluate the efficiency and effectiveness of policy measures and how they affect environmental management within the EAC region and to recommend measures to improve environmental management practices within the region. The target population of the study was the environmental organizations and bodies. The design of this research was a descriptive survey. The questionnaire comprised of both closed-ended and open ended questions. The data was then coded and keyed into the Statistical Package for Social Sciences (SPSS) for analysis. This is a computer aided tool for the analysis that help to generate descriptive statistics such as means, standard deviations and frequency distribution generated the data. Data presentation was done by the use of pie charts, bar charts and graphs, percentages and frequency tables. This study established that declining water quality was the most severe challenge/threat followed by loss of bio-diversity, drought, declining water quantity, waste management, climate change, food insecurity and floods. The study also found that there were weaknesses in the implementation of policies that affect environmental management practices. The main cause of weaknesses in making these policies effective was related to implementation followed by policies. EAC Secretariat was moderately effective in the implementation of policies. The biggest challenge in implementing policies is on funding to facilitate the process. To improve the environmental management practices in the basin, bilateral cooperative frameworks should be established through MoUs, and let there be a desk officer for these sub basins of the Lake Victoria Basin. EAC and LVBC Secretariats should be accountable to all decisions made by Council of Ministers and Summit; and produce results, outcome and impacts that can be measured and monitored and reported to all EAC people.

CHAPTER ONE: INTRODUCTION TO THE STUDY

1.1 Background

There is a growing trend the in world towards establishing regional mechanisms of cooperation and integration whereby sovereign states are tending to be increasingly coming together. Some of the main reasons range from integration of states' economies through free trade agreements, to technological changes that influence how states, non-state actors and even individual citizens interact¹. Integration means the bringing together of several parts to make a whole, it may also include some interdependency. In Regional Integration (RI), states cooperate in order to form supranational organizations that subsume a number of states and their functions, though to varying degrees from one regional integration to another². These supranational organizations coexist with traditional forms of state-led organization at the national level. Integration can exist for purposes of independent units joining together to pursue goals and objectives which they would not be able to achieve independently.

A common definition of integration states that it is a shifting of certain national activities towards a new center³. The processes of regional integration that emerged after World War II, were originally mostly about trade and economics, but it has become clear that, especially since the 1980s, with the so-called 'new regionalism' wave, regional integration can be seen as a multidimensional process that implies, next to economic cooperation, also dimensions of political, diplomatic, security and culture ⁴

However, there are two main motives that dominate efforts to achieve regional integration: economic motives and political motives. Regional integration agreements which are primarily economically motivated have more direct environmental effects, compared to agreements which are more politically motivated. This is because the economically driven integration zones create or divert more trade, which can have a significant effect on the environment⁵.

¹ Goldstein, J. S. & Pevenhouse, J.C. (2011). *International relations*, Nicholasville USA, Pearson.

² Ruszkowski, H. J. 2006. Europes Challenges in a Globalised World. Global Jean Monnet Conference ECSA – World Conference

³ Haas,EB.,(1958),*The Uniting of Europe*, Stanford :Stanford University Press.

⁴ Langenhove, V & Lombaerde, P. (2005) Indicators of Regional Integration, in, Conceptual *and Methodological Issues*. Dublin, Trinity College Dublin.

⁵Altmann, Jorn (2002). Integration of Environmental Aspects in Regional and Inter-Trade Agreements P 21.

At the same time there are two structural differences of integration zones; Homogenious, consisting only of developed countries such as the EU or one consisting of only developing countries, such as the EAC; and Heterogeneous, consisting of a mixture of developed and developing countries⁶.

Globalization is mainly shaped by the efforts of global arrangements such as GATT/WTO to open up protected markets and expand world trade⁷. Some conservationists like Bagwati (2000), Dua and Esty(1997) and even (Nordstrom and Vaughan 1999)⁸ have argued that this opening up of transnational trade encourages environmental degradation through long range transportation of goods and unsustainable methods of mass production. Another effect is the tendency to locate high polluting industries in the poor countries where environmental protection regimes are lenient, yet market access is presented by transnational trade. On the other hand transnational companies are likely to observe higher environmental standards by maintaining the practice of their businesses in the industrialized countries where the environmental standards are higher.

These high environmental standards, combined with technology and management methods, are often applied world-wide by such transnational companies. Regional export orientation also encourages the use of best practice technologies when the target markets have certain quality requirements - e.g. sanitary and phytosanitary standards which can only be met by using environmentally friendly technology⁹. This has a likely effect of transferring the technology to the local companies and greatly influence environmental standards. By extension then, a common market offers many more possibilities for the development of common environmental standards and for harmonization of policies that can foster sound environmental management practices¹⁰. Nevertheless, trade and economic integration remain a central aspect of ongoing integration schemes.

In a global perspective, there are really two closely related main causes of environmental strain: population growth and private and state poverty. The central assumption that human economic activity, without being countered by appropriate environmental policies, will lead to increased environmental strain caused by production, transport, and consumption, is realistic. Even

⁶ Altmann, Jorn (2002). Integration of Environmental Aspects in Regional and Inter-Trade Agreements. P 24

⁷ Baylis et al 2008. p. 356

⁸ Bagwati, j., (2000). On Thinking Clearly About the Linkage Between Trade and the Environment, Environment and Development Economics 5 (4): 485-496.

⁹ Altmann, Jorn (2002). Integration of Environmental Aspects in Regional and Inter-Trade Agreements.p. 41.

¹⁰ Ibid, p. 15

assuming a constant per capita environmental strain, absolute environmental strain, ceteris *paribus*, will be progressive, not linear, with every new inhabitant of the planet¹¹.

It is easy to figure out the effects of liberalization on economic growth but less so in terms of the effects on the environment, for the resultant growth can either result in positive or negative effects on the environment. Although it is not easy to filter out the environmental effects caused specifically by trade as a result of economic integration, it is generally appreciated that economic growth results in significant increase in consumption of resources especially water and energy as well as generation of wastes. It should also be appreciated that economic growth is by no means a guaranteed method for reducing poverty, which is a main cause of environmental strain.

1.1.2 Challenges of environmental management

Environmental problems associated with waste and emissions produced from various supply chain activities have forced organizations, facing competitive, regulatory and community pressures, to move towards greening their supply chains. However, most of the adopted green solutions, especially in developing countries, remain to be the traditional command-and-control or "end-of-the-pipe" solutions. The end-of -the-pipe approach does not eliminate pollutants, but merely transforms them from one medium to another¹². Unlike the traditional environmental management, the concept of green supply chain assumes full responsibility of a firm towards its products from the extraction or acquisition of raw materials up to final use and disposal of products¹³.

A number of challenges frustrate efforts on environmental management. They include

- Poor legislation¹⁴ which negatively impact on the ability of the region to positively implement international agreements and also to stifle the deteriorating state of the environment.
- Lack of Direct Incentives- The policy of requiring firms to reduce pollution at source, which necessarily involves changing their production technology and organization,

¹¹Ibid p.34

¹² Zhu, O., & Sarkis, J., (2006) An inter-Sectoral Comparison of Green Supply Chain Management in China: Drivers and practices, *Journal of Cleaner Production*. 14: 472-486. ¹³ Hart, S.L. (1995) A Natural-Resource-Based View of the Firm. *Academy of Management Review*. 20(4): 986–1014.

¹⁴ (Meheta, 2002)

overlooks the possibility that firms might already be searching for new ways to improve metal recovery, reagent use, energy efficiency, water conservation, and so on as part of their corporate strategies to increase competitiveness¹⁵.

- Financial Constraints- environmental management practices need high levels of funding. Specifically, some companies spend over 20% of their total revenue in adopting environmental measures, employee environmental training and appropriate equipment¹⁶, Lack of Management Commitment- top management in most of the companies is less concerned over environmental issues and reluctant to allocate adequate financial, technological and human resources to implement the green management practices ¹⁷.
- Lack of Employee Commitment- Mining companies do not have proper performance evaluation system, they also do not have proper rewarding scheme for the employees to motivate them to be held responsible for protecting the environment, Lack of Awareness-Poor awareness regarding environment among the politicians, citizens, and bureaucracy is compounded by the low levels of literacy and the poor mass media concern¹⁸, Inappropriate Approach to Implementation Many enterprises mistakenly begin implementation immediately following an initial environmental diagnosis without critically reviewing objectives and policies ¹⁹. These problems coupled with other setbacks pose heavy challenges against efforts directed towards environmental management.

1.2 Statement of the Research Problem

The East African Community is comprised of five countries, namely Kenya, Uganda, Tanzania, Burundi and Rwanda, covering an approximate area of 1.82 million square kilometers²⁰. Between them, they have an estimated population of 130 million people sharing a common history, language, culture and infrastructure, as well as common resources including national

¹⁵ Das, A., (2009). Does Firm Ownership Differentiate Environmental Compliance? Evidence from Indian Chromite Mining Industry, in, *Munich Personal RePEc Archive* 18716 (18):1-26

¹⁶ Nikolaou, I.E. and Evangelinos, K.I. (2010) A SWOT analysis of environmental management practices in Greek Mining and Mineral Industry. *Resources Policy*. 35: 226–234.

¹⁷ Quazi, A.H. (1999).Implementation of an Environmental Management System: The Experience of Companies Operating in Singapore, *Industrial Management & Data Systems*. 99(7): 302-311.

¹⁸ Bowonder, B., (1986). Environmental Management Problems in India, in, *Environmental Management*, 10(5): 599-609.

¹⁹ Hale, M. (1995) Training for environmental technologies and environmental management. *Journal of Cleaner Production*. 3(1–2): 19–23.

²⁰ EAC, 2012

parks, water bodies, wetlands and diverse forest ecosystems. This is in addition to more localized water bodies, rivers, national parks, forests, wetlands and a rich biodiversity largely found on private lands²¹.

The environment is vital in supporting life, absorbing waste and providing inputs for production. Yet there is growing concern that current trends in economic growth have caused serious environmental damage and the current state of the environment will constrain future development²². The poor in developing countries such as those of East African Community depend on the natural environment for their livelihood and thus damage to the environment has a lot of implications on the people.

The environment provides a biological, chemical and physical system which includes the atmosphere, water, and biodiversity (diversity of plant and animal life), which are essential in supporting human life.

The environment also provides raw materials and energy for economic production and household activity. These resources are either renewable, such as forests and fisheries or nonrenewable, such as minerals. Renewable resources can be used in a sustainable manner but over-exploitation or mismanagement of the resource can result in the complete loss of the resource as happens when desertification results from deforestation.

The environment also helps to absorb waste from households and industrial activities. In such a case, the environment acts as a sink for the waste and helps to have the waste disposed of safely, as happens in the case of forests absorbing carbon dioxide emitted from human activities. I such a case the forest acts as a carbon sink

There are three key features to environmental management in East Africa that need to be emphasized in the context of institutional reforms and poverty eradication. First, most of these resources are under tremendous pressure largely arising from an increasing population, increasing demand for various resources such as forest products and water, declining public

²¹Maxon, R., (2009). East Africa: An Introductory History, (3rd and Revised Edition), Virginia, West Virginia Press. 43.

²² Thirlwall, A.P., (2006). *Growth and Development, With Special Reference to Developing Economies*, 8th Edition, Oxford, Oxford University Press. 339.

investments, poorly defined property rights, exclusionary policies and macro-economic policies that provide incentives for overexploitation ²³.Second, in spite of this tremendous natural resource wealth in the region, environmental institutions have struggled to create the necessary incentives that promote wealth creation through the sustainable use of these resources, and as a result have failed to create an environment where the poor, who depend on these resources, can sustainably lift themselves out of poverty. It is tenable to argue that one reason for the failure of the environmental institutions in the region to use this natural wealth to transform rural livelihoods and build prosperous communities is due to the political governance systems in place²⁴.

Thirdly, whilst all five countries see their route to economic growth, and therefore poverty reduction, through the use of these natural resources (be it through agriculture exports, increased tourism or mineral extraction), they have consistently failed to adequately involve environmental management institutions in the development of these growth policies and therefore the sustainability of these policies can be seriously questioned ²⁵. Given the above background a need for an examination of the effects of the EAC integration on the environmental management is thus warranted.

A study published by the Society for International Development (SID)²⁶ focused on four areas: trade; education; media; and labour. It also focuses on trade and discusses the distribution of costs and benefits in the context of East African regional integration. It analyses the distribution of trade related benefits and costs and discusses the patterns and trends resulting from the EAC (economic) integration. Key It also explores the factors behind the distribution of the costs and benefits within the EAC and makes proposals made towards addressing imbalances at the national and regional level.

Another study by Rusuhuzwa (2012)²⁷ assessed the potential implications of the Entry of the new Republic of South Sudan into the East African Community. It focuses on the requisite conditions for a new member to join the EAC. The main interest was to assess the viability of the

 ²³ Claire, I., & Godber, T., (2004) The Evolving Roles of Environmental Management Institutions in East Africa: From Conservation to Poverty Reduction, Kampala, IDL group.
 ²⁴ Ibid

²⁵ Ibid

²⁶ Society for International Development (SID), 2011. East African Integration; Dynamics of Equity in Trade,Education and Labour.

²⁷ Rusuhuzwa, Thomas Kigabo, The Potential Implications of the Entry of the new Republic of South Sudan into the EAC.

application of the South Sudan to join EAC. The parameters assessed are stock of progress the EAC had achieved and contemplate its future challenges, and the main focus was on the intraregional trade. Mbithi and Chekwoti (2014)²⁸ assessed the performance of the services sector of the EAC Partner States. It dwells mainly on the travel services and competitiveness of the sector

Eyster²⁹ has discussed the EAC as seeking deep economic and political integration with a view of combining strength and operating as a formidable economic unit in the global economy. The main focus of the study was to evaluate the modern economic situation of the region and the implications of its plans for economic and political cooperation, using South African economy as the leading African economy to benchmark

A report by World Bank³⁰ explores regional economic integration and its potential impacts on human development, with a focus on Africa. It assesses how contextual factors common to many African countries might condition the impacts of regional integration on human development, and draws on experiences in other continents. It supplements this qualitative analysis with simulations of regional integration processes for different regions in Africa, and economic integration of the whole of Africa.

Another paper by World Trade Organization $(WTO)^{31}$ examines the history of regional integration in Africa, what has motivated it, the different initiatives that African governments have pursued the nature of the integration process, and the current challenges. Regional integration is seen as a rational response to the difficulties faced by a continent with many small national markets and landlocked countries.

Generally, regional integration is regarded as a vehicle to economic prosperity and in some rare instances some consideration is made of the political environment that would support the economic activities to thrive. However, rarely is the effect of regional integration considered in terms of the impact it may have on the environment. This study therefore aims to analyse the likely effect EAC integration on the environment, with a view to mitigating any likely negative effect and leverage on the positive impact.

²⁸ Mbithi, Lucia Mary and Caiphas Chekwoti, 2014. Assessment of services sector in the East African Community (EAC) Partner State Countries

²⁹ Eyster, Grant, 2014. Economic Development and Regional Integration in the East African Community

³⁰ UNDP, 2011. Regional Integration and Human Development: A pathway for Africa; Bureau for Development Policy

³¹ WTO, 2011. Regional Integration in Africa

1.4 Research objectives

- i. To evaluate environmental management challenges facing East African region.
- ii. To analyze the principles, norms, rules and decision making procedures within the East African Community that affect Environmental Management Practices.
- iii. To evaluate the efficiency and effectiveness of legal and policy frameworks and how they affect environmental management within the EAC region
- iv. To recommend mechanisms to improve environmental management practices within the region

1.5 Significance of the Study

The study would provide knowledge on relationship between EAC integration and environmental management in East Africa. This would be useful to the governments of the countries to apply the right and effective measures for managing the environment. It will help to identify environmental management challenges facing the region, analyze the current trends in incorporating appropriate measure, and help to draw a realistic balance between the need for economic growth resulting from the regional integration with sound management of the environment.

1.6 Theoretical Literature Review

There are a number of theories that explain the tendency of states coming together to address issues of common interest, including emerging challenges such as those related to the environment. Some of these theories will briefly be discussed here and their relevance to the subject of this study outlined.

1.6.1 Functionalism Theory

Functionalism Theory explains the growth of specialized technical organizations that cross national borders. According to scholars in functionalism, key among them Mitrany (1943) and Haas (1958, 1971), economic integration process begins with functional cooperation in a sector such as infrastructure, or environment which in turn could spur further cooperation in other areas technological and economic development lead to more and more supranational structures as states seek practical means to fulfill necessary functions that transcend national territorial

boundaries, such as the utilization of transboundary natural resources³². At the higher level, is the Neo-functionalism, a modification of the functionalism theory which explains the formation of more general and more political supranational structures such as the East African Legislative Assembly (EALA) and the East African court of Justice (EACJ) which result from the growth in states' common interests and hence the tendency to forge even more closer ties. Neofunctionalists, led by Ernest Haas argue that economic integration generates political dynamic that drives integration to a higher level due to the fact that closer economic ties require more political coordination in order to operate more effectively and eventually lead to political integration as well, a process called spillover³³. Both the functionalists and the Neofunctionalists challenge the very foundations of realism that argues for state sovereignty and territorial integrity.

Greater economic integration (functionalism) generates political dynamic that further drives integration due to the greater political coordination required as a result of the closer economic ties in order to operate effectively which eventually may lead to political federation - a process called spillover³⁴.

1.6.2 Systems Approach to Sustainable environment

In environmental management, achieving sustainability must embody, in some form, elements of physics, engineering, ecology, law, economics, sociology, and politics and cannot be investigated successfully within the confines of a single discipline³⁵. A systems theory approach offers a suitable methodology to achieve this integration³⁶.Scholars such as Gallopin, Gills identify the integration process as a series of decision-making process which is influenced by the sum of the positive feedbacks arising from this integration. They aver that the same goes for a natural system. Although optimization leading to time-independent decisions is a well established decision-making technique, such decisions might be suboptimal for natural systems, as they ignore the inherent dynamic characteristics of these systems³⁷. According to Bertalanffy (1968), however, a system is an entity that has various units which constantly produce outputs in

³² Goldstein & Pevenhouse, op cit.

³³ Haas, E.B, op cit.

³⁴ Ibid, P.355

³⁵McMichael, A., Butler, C., Folke, C., (2003). New visions for Addressing Sustainability, Science, 302, 1919–1920.

³⁶ Ludwig, von Bertalanffy (1968), General System Theory, accessed at; http://www.panarchy.org/vonbertalanffy/systems.1968.html on 26th October 2014 at 5.30 pm.

³⁷ McMichael, A., op cit.

response to inputs generated by the system itself. This implies that a healthy system has to manage the positive and negative outputs in the form of feedbacks to the system. This selfadjusting mechanism is a major survival tactic that ensures the longevity and sustainability of the system. Moreover, such effects are often not evident immediately and manifest themselves only over a long time period, an important criteria for sustainability studies. Therefore, an effective approach is to use control theory to derive time-dependent management decisions. Some selected examples of this approach include renewable resource management³⁸, food chain disaster management³⁹, population management through harvesting⁴⁰, lake water quality management⁴¹, and forest-fire management⁴². Among the various control techniques, optimal control has been at the forefront, particularly in applications to natural systems, primarily due to its generality and applicability to nonlinear systems⁴³. Optimal control problems are defined in the time domain, and their solution requires establishing an index of performance for the system and designing the course (future) of action of selected parameters (control variables) so as to optimize the performance index

1.6.2 International Regimes:

An International Regime is a set of rules, norms and decision making procedures, around which the expectations of actors in the international systems converge on certain issue areas such as international trade, arms control, or deep sea fishing and mining as well as the management of environment and natural resources⁴⁴. Regimes are therefore delineated areas of rule-governed activity behaviour in the International System, predicated upon the ability of states to develop and follow mutually advantageous rules, with the International institutions to monitor enforce them. International Regimes are anchored upon the International Law, which in itself presents a challenge due to lack of a centralized structure and hence its effectiveness is at times hampered. Regimes therefore come into existence to help states resolve collective goods dilemma by

³⁸Clark, C., (1990).Mathematical Bioeconomics, *The Optimal Management of Renewable Resources*, (2nd Ed).New York, John Wiley.

³⁹ Shastri, Y., & Diwekar, U., (2006). Sustainable Ecosystem Management Using Optimal Control Theory: Part 1 (Deterministic systems), *Journal of Theoretical Biology*, 241, 506–521. ⁴⁰ Kolosov, G. (1997). Size Control of a Population Described by a Stochastic Logistic Model:. *Automatic Remote Control*

⁽Engl. Translation.) 58,678–686. ⁴¹ Ludwig, D., Carpenter, S., & Brock, W., (2003). Optimal Phosphorous Loading for a Potentially Eutrophic Lake, *Ecological*

Applications, 13, (1) 135–1152. ⁴² Richards, S.; Possingham, H.; Tizard, J., (1999) Optimal Fire Management for Maintaining Community Diversity. Ecological

Applications, 9, 880-892.

Kirk, D. (1970) Optimal Control Theory: An introduction, New Jersey, Prentice Hall: Englewood Cliffs.

⁴⁴ Goldstein S. J. and Pevenhouse, J. C. 2011

coordinating the behaviour of individual states⁴⁵. Therefore Regime theory assumes that the International system operates by reciprocal contributions and concessions among formally equal members. Indeed, in several International Organizations such as EAC, decision making requires consensus among all members, making them all "equal" in a specific area of governance. It can also be observed that in line with these diplomatic practices the general principles of EAC are mutual trust, political will and sovereign equality, while all decisions are by consensus⁴⁶.

The Regime theory is therefore relevant to many spheres of international relations, but a clear link exists in the management of the environment. There are many elements of the environment that transcend the territorial boundaries and hence the need for a mechanism to govern. There are thus clear imperatives to establish environmental regimes. Rapidly rising global population, especially in developing countries, coupled with diminishing natural resources, environmental pollution, global warming, and damage to the ozone layer are the issues which have attracted most public attention, but regimes have been established in a wide range of areas in the attempt to protect the global environment. For example, international conventions to save endangered plant and animal species can be traced back to the 1970s, and a comprehensive Convention on Biological Diversity came into force in December 1993. There have also been attempts since the mid-1980s to regulate the international movement of hazardous waste material, with the Basel Convention establishing a complete ban in March 1993 on the shipping of hazardous waste from countries in the developed world to countries in the underdeveloped world⁴⁷.

Koehane and Nye (1984) in their exposition on the concept of regimes identify them as sets of implicit and explicit principles, norms, rules and decision-making procedures around which actors' expectations converge in a given area of international relations.⁴⁸ Indeed most of the international activities are governed by these rules, some of which are so familiar that they have almost been taken for granted. Regimes are so critical in governing the conduct of world affairs that both the Realists and the Liberalists are agreed on the fact that although the world is Anarchic (without a ruler) in structure, it is nevertheless far from being anomic (without rules)⁴⁹. The two agree on the existence of regimes as an important feature of the international system but

⁴⁵ Ibid

⁴⁶ EAC Treaty, Arts 6, 12

⁴⁷ Goldstein S. J. and Pevenhouse, op cit.

⁴⁸ Keohanne, R.O., (1984), *After Hegemony: Cooperation and Discord in the World Political Economy*, New York, Princeton University Press

⁴⁹ Ibid.

they differ in their perspectives about the circumstances under regimes emerge. Realists, among them Hans Morgenthau and Kenneth Waltz believe that regimes are for coordination; that they offer differential benefits to states; that power is the central feature of regimes and that the nature of world order depends on the underlying principles and norms of regimes⁵⁰. On the other hand the Liberals who include John Locke, Adam Smith, Montesquieu, Thomas Jefferson, John Stuart Mill, Lord Acton, T. H. Green, John Dewey and contemporaries such as Isaiah Berlin and John Rawls contend that regimes enable states to collaborate, that regimes promote common good; that regimes succeed most when promoted by benign hegemon and that regimes promote globalization and a liberal world order.⁵¹ An important aspect of the two schools of thought though is the fact that the two consider regimes as a product of rational self- interested actors. It is the self interest of states that creates interdependence. Interdependence is as result of the realization that collective action is required in order to achieve certain objectives. These may range from economic to environmental, yet the characteristics are similar in that both seek to address challenges that cut across state borders.⁵²

Regimes function in a similar manner to legal instruments in terms of having common interests to achieve, but differ in that whereas a treaty is a legal instrument stipulating rights and obligations, a regime is a social institution wherein stable patterns of behavior result in from compliance with certain norms and rules whether these are laid down in a legally binding instrument or not⁵³.

1.6.3 Realism

Realism or political realism is a school of thought that explains international relations in terms of power⁵⁴. Believers in the realist school of thought, led by American Political Scientist, Hans Morganthau (1984) view the state as the single most important actor in the international system with predetermined national interests, which often quantifies costs and benefits involved in different policy alternatives to achieve desired goals. Realists are skeptical of any legal mechanisms working beyond the national boundaries. This is basically due to the fact that there is absence of a central authority to legislate, adjudicate and enforce international law.

⁵⁰ See Gilpin, R., (1996).No One Loves a Political Realist, Security Studies, 5(3), pp. 45-67.

⁵¹ Campbell, John L. and Ove K. Pedersen, eds. (2001): *The Rise of Neoliberalism and Institutional Analysis*. Princeton, New Jersey: Princeton University Press.

⁵² Keohane, R., op cit.

⁵³, International politics of the environment

⁵⁴ Goldstein S. J. and Pevenhouse, op cit.

Morgenthau (1985) argues that at best, International law is a form of 'primitive law' akin to that of the preliterate societies and not applicable to the modern society⁵⁵. Morgenthau's argument is supported by Kingsbury (1998) who avers that whereas within the state, citizens are obliged to obey the law because sanctions exist to punish illegal behavior, while there are no such mechanisms to punish offenders albeit the existence of international sanctions whose enforcement is rudimentary⁵⁶. Thus States do not have strong international legal obligations.

Waltz (1989), echoing other realist stress the fact that the anarchic nature of the international system precludes any superior authority above states to govern state affairs. This, to Waltz (1989) arises from the inherent nature of man to be self-centred, always seeking self gratification and satisfaction above the welfare of other individuals. The state, being man writ-large, only seeks to satisfy national interests which are mainly security considerations and not economic cooperation.⁵⁷

Despite these observations, there are strong arguments⁵⁸ to counter this in the form of growing complex international legal order in which international affairs are conducted. These legal regimes govern international affairs such as Telecommunications, fisheries, arms control, world trade, Human rights, drug trafficking and the management of Environment and Natural Resources. Furthermore, even powerful states are constrained to some degree by the international law and do not violate it with impunity. At the same time, weak state and non state actors have used the international law to achieve advantageous outcomes, even in the face of opposition from powerful states⁵⁹.

1.6.4 Liberalism Vs Realism debate

Both Realists and Liberals acknowledge that although the international system is anarchic (without a ruler) in structure, it has never been anomic (without rules). Whereas both agree on the assumption that states are unitary actors, rationally pursuing their self interests in a system of anarchy, Liberalists insist that despite their many conflicts in the international scene, States cooperate most of the time by creating mutual rules, expectations and behaviour that enhances

⁵⁵ Morgenthau, H., (1985) Politics Among Nations: The Struggle for Power and Peace, New York, McGraw Hill, p.295.

⁵⁶ Kingsbury, B., (1998) Sovereignty and Equality, European Journal of International Law, 9, 599-625.

⁵⁷ Waltz, K., (1989), The Origins of War in Neorealist Theory, in, *The Origin and Prevention of Major Wars*, Rotberg, R., Rabb, T.,(Eds), New York, Cambridge University Press, p. 40.

⁵⁸ Keohanne, R.O., (1984), *After Hegemony: Cooperation and Discord in the World Political Economy*, New York, Princeton University Press.

⁵⁹ Goldstein S. J. and Pevenhouse, op cit.

(or at least does not destroy) the possibilities for mutual gain. Liberal theorists treat State Decision-makers as Rational Actors, capable of foregoing short term individual interests in-order to further the long term well- being of a community to which they belong-and hence indirectly their own well-being.

Although Liberals and Realists acknowledge that regimes are an important feature of the international system, and draw on similar tools of analysis, they reach different conclusions about the circumstances in which regimes emerge. For the liberals, the need for regimes arises because there is always a danger in the anarchic international system that competitive strategies will trample cooperative strategies. Their analysis therefore focuses on ways of deterring competitive strategies that are otherwise seen to be the rational response within an anarchically structured system.

By contrast, realists link the emergence of regimes only to situations which require coordination. Realists therefore assume that there is no incentive to defect once coordination has taken place.

For Realists⁶⁰, power plays a crucial role, not as a threat to discipline states caught defecting from a collaborative agreement, but in the bargaining process i.e to determine the shape of a regime around which all states will coordinate their actions. Thus Regimes do not negate the effects of power; more often they codify and normalize existing in power relations and in accordance with the dominance principle⁶¹. For example, the nuclear no-proliferation regime protects the status quo in which only a few states have nuclear weapons.

Because Regimes depend on state power for their enforcement, some Realist scholars argue that Regimes are more effective when power is concentrated in *hegemons*. However, Liberals argue that Regimes do acquire a life of their own, so that hegemony becomes unnecessary for their maintenance. For Realists, the conflict over economic regimes reveals most clearly the importance of the role played by power in the establishment of regimes. It is the rich and powerful states in the North that have primarily determined the shape of these economic regimes. Third World states have had no alternative but to accept the regimes because of the need to engage in trade.

⁶⁰ Morgenthau, Hans and Kenneth W. Thomson op cit (1985)

⁶¹ Goldstein S. J. and Pevenhouse, op cit.

The two approaches adhere to divergent conceptions and use of power. For liberals, power may be used by a hegemony to pressure other states to cooperate and conform to a regime; but states can also establish and maintain regimes without hegemonic power. Cooperative strategies are pursued and maintained because of the mutual recognition that if any state defects, from a regime, it will result in mass defection on a tit for tat basis, with negative impact for all.

Liberal and Realists use very similar tools of analysis – drawing on microeconomics and game theory – they arrive at slightly different conclusions on why regimes are formed.

Liberals use the "Prisoner's Dilemma" to illustrate that Co-operation is possible, while Realist s use the "Battle of sexes" to illustrate the need for Coordination of certain activities between States.

Neoliberals, among them Benjamin Constant and John Stuart Mill and more recently, John Dewey, William Beveridge, and John Rawls have articulated the view that the state to a functional extent can be involved in the market.⁶² Modern liberalism could therefore generally be thought of as being situated politically to the left of classical liberalism, because of its willingness to employ the state as an instrument to redistribute wealth and power – in order to create a society deemed to be more decent or equitable argue that the way towards international peace is to have independent states pool their resources and even surrender some of their sovereignty to create integrated communities to advance common interests or respond to regional challenges⁶³.

Friedman(2006) observes that neo-liberal Institutionalists perceive the creation of institutions as the means to achieve cooperation among actors in the system which to him help to explain the strategic sources of international law by accepting the logic of anarchy and self-interested nature of states, and yet being bound by the international law.⁶⁴ This explanation is however most valid in the case where states have self-interest for example open free trade for those countries who are export producers as well as environmental issues, while they are weakest where the issues stretch or contradict the self interests of states,. They however recognize that successful responses to threats, including those with a security bearing requires the creation of regional and global regimes that create cooperation among states and the coordination of policy responses to these

⁶² Campbell, John L. and Ove K. Pedersen, eds. (2001): *The Rise of Neoliberalism and Institutional Analysis*, Princeton, New Jersey: Princeton University Press

⁶³ Baylis J., et al, (2008), *The Globalization of World Politics: An Introduction to International Relations*, Oxford, Oxford University Press, P. 131 - 133

⁶⁴ Friedman, Thomas (2006): The World is Flat: The Globalized World in the Twenty-First Century. London: Penguin.

threats. Thus institutions have been created to manage international affairs in both trade and environment, while it is more difficult to cooperate in military and national security areas, where one state's gain may mean a loss for another.

Conditions of anarchy tend to make cooperation more difficult to achieve. Neo-Realists, like Kingsbury(1986) and Waltz argue that the world is more competitive and conflictive, and hence are more pessimistic about the success international cooperation. In their view states work to establish regimes if the latter serve former's interests (absolute gain), and only continue to support them if their activities do not confer greater advantage to other states (relative gain).⁶⁵

However for the Neo-Liberalists, although International relation is competitive, the opportunities for cooperation in areas of mutual interests mitigate the effects of anarchy. They predict that formation of institutions for cooperation will increasingly play important roles in managing the affairs of a globalizing world and that states will eventually come to the realization that acting unilaterally or limiting cooperation will not help in addressing critical global problems.⁶⁶ Although the Neo-Realists appreciate the potential gains in cooperating even in areas other than national security matters, they aver that the growth of institutions is limited by the great emphasized by relative gains⁶⁷. Thus the two relevant in different realms of International relations; such as political economics, environment and human rights issues for the Neo-Liberals and in security matters for the Neo-Realists.

1.6.5 Environmental resource management theory

Environmental resource management theory is a purposeful activity with the goal to maintain and improve the state of an environmental resource affected by human activities⁶⁸. It is not, as the phrase suggests, the management of the environment as such, but rather the management of the interaction and impact of human societies on the environment.⁶⁹ The proponents of this theory include Bromley, (1989), Mcnicoll and Gain, (1990), Ostrom, (1992), among others.these theorists stress the need to shift from an ecocentric approach towards development to an approach that emphasize the need for an equitable use of environmental resources not only for

⁶⁵ Waltz, K., op cit.

⁶⁶ Friedman, Thomas (2006). The World is Flat: The Globalized World in the Twenty-First Century. London: Penguin, p. 56.

⁶⁷ Baylis, J., op cit. p. 134.

⁶⁸ Pahl-Wost, C., (2006). The Implications of Complexity for Integrated Resource management, *Environmental Modeling and Software*, 22 561-569.

⁶⁹ Bromley, D. W., (1989). Institutional Change and Economic Efficiency, Journal of Economic Issues, 23 (3): 735-759.

the benefit of current generations but also for future generations.⁷⁰ The initial focus was on population increase, environmental degradation and natural-resource depletion but there is now a shift towards establishing institutions to manage the environmental concerns and challenges. Environmental resources management aims to ensure that ecosystem services are protected and maintained for equitable use by future human generations, and also, maintain ecosystem integrity as an end in itself by taking into consideration ethical, economic, and scientific (ecological) variables.⁷¹ Environmental resource management tries to identify the factors that have a stake in the conflicts that may rise between meeting the needs and protecting the resources.

1.6.6 The Marxist Theory

Marxist scholars, led by Karl Marx and the Dependency and underdevelopment theorists such as Mamdani are concerned with the way capitalism reproduces relationships that are profoundly damaging to the environment. Marxists point to a world dominated by the powerful states who dominate the global means of production where their sole purpose is the exploitation of natural resources for economic benefit with less attention paid to the negative impact to the environment.⁷² Sowell argues that the global spread of neo-liberal policies accelerate those features of globalization such as consumerism, the relocation of production and hence centers of emission and depletion of natural resources to the global south which are driving the global ecological crisis⁷³.

1.6.7 Ecological Modernization Theory on environmental management

The emergence of this "alternative" macrotheoretical model of ecological degradation came in response to the failures of the initial wave of environmental management of the 1970s and early 1980s⁷⁴. During this phase pollutants were dispersed over time and space, rather than reduced. Furthermore, industrial responsibility for "ecological harm" provided an irresolveable discourse on causality, impact and responsibility that resulted in, at best, ambiguous claims and counterclaims⁷⁵. Out of this impasse came ecological modernization, a model of resource and risk management that purportedly "transcends" these various conflicts and interests. The "dissolution

⁷⁰ Ibid.

⁷¹ Ibid.

⁷² Sowell, T., (1986). Marxism: *Philosophy and Economics*, London.

⁷³ Baylis: P365

⁷⁴ Cohen, M. J. (1998). Sustainable Development and Ecological Modernization: National Capacity for Rigorous Environmental Reform, in, Requir-Desjardins, D., Splash C., & van der Straaten J., (Eds). Environmental Politics and Societal Aims. Dordrecht, Kluwer Press, p. 45. ⁷⁵ Ibid.

of conventional antagonisms between economic progress and requiring the installation and maintenance of expensive remedial technologies 76 .

Theory of environmental management is divided into six general principles⁷⁷. First, environmental management will correct "the design flaws" of industrial technology through the process of "super industrialization"⁷⁸. This process involves a change to cleaner, less resource intensive technologies and production processes that will reduce the necessity for expensive, add-on, remedial technologies. The correlation between economic development and environmental degradation will be significantly reduced, thereby "propelling" modern industry" onto a new developmental trajectory"⁷⁹.

Second, acknowledging the ineffectiveness of past corporate volunteerism, environmental management requires the existence and implementation of "strict government regulations"⁸⁰. Such regulation should promote "first mover advantages" and economically viable "green" products to innovative production systems⁸¹. Third, environmental management promises to overcome the transfer of pollutants within the biophysical environment by developing "integrated pollution management" strategies. Such strategies would be part of the redesign of regulatory procedures and production processes.

Fourth, environmental management requires industry to be more timely and responsive to their generated health and environmental hazards through "anticipatory planning practices". Based on the German notion of *vorsorgeprinzip*, or "the precaution principle," this tenet argues that "the lack of scientific certitude is insufficient reason to postpone the taking of prudent measures" for reducing environmental risk⁸².

Fifth, most proponents of environmental management endorse the "organizational internalization of environmental responsibility" through the Dutch principle of verinnerlijking. This concept:

⁷⁶ Ibid.

⁷⁷ Cohen, M. J. (1997). Risk Society and Ecological Modernization: Alternative Visions for Post-Industrial Nations, in, *Futures*, 29(2): 105-119.

⁷⁸ Ibid. 79 Ibid.

⁸⁰ Cohen, M. J. (1997). Risk Society and Ecological Modernization: Alternative Visions for Post-Industrial Nations, in, Futures, 29(2): 105-119.

⁸¹ Cohen, S., (2006). Understanding Environmental Policy. New York: Columbia University Press.

⁸² Cohen, M. J. (1998). Sustainable Development and Ecological Modernization: National Capacity for Rigorous Environmental Reform, in, Requir-Desjardins, D., Splash C., & van der Straaten J., (Eds). Environmental Politics and Societal Aims. Dordrecht, Kluwer Press, p. 56.

requires all public and private entities to integrate a concern for environmental quality into all of their activities as a means of overcoming the standard approach of treating ecological considerations as add on considerations⁸³. Environmental management requires that "stand alone" organizational components for assuring ecological responsibility should be dissolved and re-embedded throughout all decision-points in production systems.

Sixth, in response to emerging ecological antagonisms and conflict over environmental policy, environmental management requires a broader organizational network for decision- making. The development of "constructive relationships" between industry, government, NGOS and the public need to be achieved. The resulting discourse should be "grounded in good faith and the free exchange of information"⁸⁴.

Environmental management provides a theoretical alternative to risk society theory that has seen some acceptance by national governments and industry. For example, the Organization for Economic Cooperation and Development (OECD) and the European Union have endorsed selected principles of environmental management ⁸⁵.

Furthermore, a consortium of major multinational corporations, the World Business Council for Sustainable Development, has advocated an "eco-efficiency" approach for improving organizational performance⁸⁶. Nonetheless, the ability of environmental management to overcome the lethal hazards of risk society provides the basis for a meta-theoretical discourse for ecological-based patterns of social change. The contradiction between these two global models in environmental sociology focuses on the potential role of modern technology for either overcoming or exacerbating environmental degradation. This duality has been addressed by ⁸⁷who proposes a two dimensional typology of societal development and risk emergence. This typology suggests that in the transition from pre modern to modern to ecologically-modern societies, the cycle of ecological degradation and economic advance cannot continue indefinitely⁸⁸.

⁸³ Ibid.

⁸⁴ Ibid.

⁸⁵ Gouldson and Murphy 1996; OECD 1996)

⁸⁶ Porter, M. & C. van der Linde, (1995). Green and Competitive: Ending the Stalemate, Harvard Business Review 73:120-134.

⁸⁷ Cohen, M. J. (1997). Risk Society and Ecological Modernization: Alternative Visions for Post-Industrial Nations, in, *Futures*, 29(2): 105-119.

⁸⁸ Ibid.

A shift in the social construction of the environment from an "expendable resource to a valued amenity" sets the stage for risk society conflict and/or environmental management corrections to design flaws. Risk society is not necessarily an objectively more hazardous society; rather it is a society preoccupied with the threats of technological failure and environmental catastrophe. This fact identifies the social organization of global environmental narratives that have emerged during the last decade.⁸⁹ These narratives are embedded in debates over toxic pollution, toxic waste sitting, toxic technological disasters and the responsibility and compensation for impacts⁹⁰ responsible environmental management" is based on a "reframing" of environmental discourse. In other words, (ecological modernization) reframes the terms of discourse by interpreting pollution reduction as a means of enhancing economic competitiveness rather than as an externality

1.7 Environmental Governance in East Africa

A number of environmental policy practitioners in East Africa have used Hyden's definition⁹¹ of governance as a foundation for defining environmental governance in the region. Environmental governance is defined by these practitioners as being a body of values and norms that guide or regulate state-civil society relationships in the use, control and management of the natural environment. It is argued by these scholars (Behnke Et Al., 1993; Scooms, 1994; Behnke, 1994) that these norms and values are expressed in a complex chain of rules, policies and institutions that constitute an organisational mechanism through which both the broad objectives and the specific planning targets of environmental management must be articulated.⁹² If we understand environmental governance in the above context, it is then important to recognise that within East Africa there are generally two recognized systems of environmental governance: informal and formal.

Informal environmental governance is composed of unwritten, traditional and systemic taboos, rituals and rules that regulate the interaction between the individuals and the natural environment. These informal environmental governance systems emerged from within the social system and were locally responsive to changes in the ecology on which they were based.

⁸⁹ Porter, M. & C. van der Linde, (1995). Green and Competitive: Ending the Stalemate, op cit.

⁹⁰ Edelstein, M.R. (1988). Contaminated Communities: *The Social and Psychological Impacts of Residential Toxic Exposure. Boulder*, Westview Press.

 ⁹¹ Allen P., Ed., (1993). Food for the, Future: conditions and Contradictions of sustainability, London & New York, John Wiley.
 ⁹² Ibid.

Decision-making on natural resource planning included the involvement of informal organisations and households, although this could still often be exclusionary to some members of the community. By contrast, formal environmental governance in East Africa is mainly composed of written and formal policies, environmental plans, legal instruments and formal laws, rules of practice and institutions that explicitly or implicitly impact on environmental management.⁹³ For example all the five EAC Partner States have National policies and laws that address the issues of environmental management.

However, the history of formal institutional arrangements has tended to be rather exclusive, nonresponsive and less participatory. It is important to note that these formal and informal institutions operate in an entirely political context. The politics and the political systems determine the degree of space available for these institutions to play their roles as managers, innovators and transformers. To fully understand the challenges and opportunities for making environmental institutions as key drivers for poverty eradication, it is worthwhile to reflect on the politics and political processes within which they operate.

1.8 Empirical review

There have been extensive studies, many theories, frameworks and models in the field of environmental policy and management have been developed without attention to how they might be nested with other frameworks, theories, or models. The purpose of this paper is not to argue that they should be linked. It is more to provide clarity for how they may be linked and offer insights for drawing more direct comparisons among them. For instance, Multiple Lens Framework as propagated by Cohen (2006) offers a lens for diagnosing why different environmental policies result in different types of outcomes⁹⁴. The framework is not linked to a specific theory, but perhaps could be. For instance it could be tied to other theories that focus on elements of the framework, such as environmental politics⁹⁵ and policy instrument design⁹⁶. A long list of theories in the field, such as voluntary environmental programs/green clubs⁹⁷, environmental justice theories⁹⁸, environmental conflict resolution theories⁹⁹, collaborative

⁹³ Cohen, S., (2006). Understanding Environmental Policy, op cit.

⁹⁴ Cohen, S., (2006). Understanding Environmental Policy, op cit.

⁹⁵ Haas, E. B., (2004) *The Uniting of Europe*, Notre Dame: Notre Dame University Press.

⁹⁶ Sterner, Thomas. (2003). Design of Policy Instruments, (Chapter 18), in, *Policy Instruments for Environmental and Natural Resource Management*. pp. 212-218.

⁹⁷ Fiorino, Daniel J. (2009). Green Clubs: A New Tool for Government?: A Club Theory Perspective, 14(2) 209-229.

⁹⁸ (Schlosberg 2004)

environmental management theories¹⁰⁰, or adaptive governance theories¹⁰¹ are all growing and robust in their own right, although may not be linked to broader frameworks and or more precise models. Still, much of the literature has engaged actively in model building to explore how different theories play out in different contexts, some explain use¹⁰² efforts to understand how the conditions that influence environmental compliance play out in different management contexts. Additionally, much of the environmental policy and management as advanced by Redcliff and O'Riordan has at least implicit connections to frameworks or theories that focus on policy and management processes more generally.¹⁰³ For example, environmental conflict resolution theories focusing on alternative dispute resolution¹⁰⁴have been tied to the Advocacy Coalition Framework¹⁰⁵.

A reliance on the distinction of frameworks, theories, and models does have its counterarguments. First, this distinctive vocabulary is rarely adopted across the social sciences and, hence, adopting the distinction is not a necessary strategy for success in academia. In defense of the distinction, the only research program that uniformly adopts the frameworktheory-model distinction is found within the Institutional Analysis and Development framework - currently one of the most successful research programs in the social sciences. Nonetheless, significant advances have been made among scholars who do not make the distinction¹⁰⁶. Second, the blurred boundaries among the three concepts can make it difficult to reliability distinguish among them. Thus, one could argue that the distinction may add unneeded complications in the development of frameworks, theories, or models. We recognize these counterarguments but adopt the distinction between frameworks, theories, and models because of its value in drawing linkages and comparisons among literature in a shared research program, as well as its roots in the production of science¹⁰⁷.

⁹⁹ Emerson, K., Orr, P., Keves, D., and McKnight, K., (2009). Environmental conflict resolution: Evaluating performance outcomes and contributing factors, in, Conflict Resolution Quarterly, 27(1): 27-64.

¹⁰⁰ Weber, E.P., Lovrich, N., & Gaffney, M., (2005). Collaboration, Enforcement, and Endangered Species: A Framework for Assessing Collaborative Problem-Solving Capacity, Society and Natural Resources, 18: 677-698.

¹⁰¹ Adger, Neil, (et al.) (2005). Successful Adaptation to Climate Change across Scales, Global Environmental Change, 15: 77-86. ¹⁰² May's (2005)

¹⁰³ See Allen, P., op cit.

¹⁰⁴ (Susskind, McKearnan, and Thomas-Larmer, 1999)

¹⁰⁵ (Sabatier and Weible, 2007;pg 205

¹⁰⁶ Baumgartner and Jones, (2012)., op cit.

¹⁰⁷ (Laudan, 1977)

1.8.1. Re-organization of environmental management institutions

One of the key reform processes in all the five countries has been the reorganization of environmental management institutions. As already noted, Uganda and Kenya now have national environment management authorities and Tanzania has just embarked on a similar process. The inclusion of Rwanda and Burundi has necessitated their inclusion into this growing environmental bandwagon. It is important to note that the national environmental management authorities create horizontal and vertical coordination among institutions with an environmental remit in the Partner States. At the horizontal level, there is coordination among environmental institutions on the one hand and between environmental and other agencies on the other. Conceptually, the national environmental management authorities are supposed to be apex environmental agencies fostering coordination and interaction among sectoral agencies and planning institutions such as ministries of finance, planning, agriculture, and so on.

1.8.2 Decentralization of ENRM responsibilities to local governments

The restructuring of environmental management institutions has proceeded hand in hand with efforts to decentralize environmental management institutions. In all the three countries, districts and lower local government units are increasingly being asked to take up management of key environmental resources including forests, wetlands, water and sanitation. In Kenya for instance, the promulgation of a new constitution in 2010 signaled a different regime of resource management. The county governments now play a more prominent role in resource management with the national government having the overall say in the exploitation of such resources. In Rwanda and Burundi as well as in Uganda and Tanzania, the local authorities in each of the countries are heavily dependent upon central government for financing. Despite stated government commitments central governments and environment ministries have resisted transferring appropriate and sufficient powers to local authorities. In the narrowest view this can be seen as a resistance by political leaders, for fear of losing current economic benefits, including rent seeking opportunities they presently have over natural resources¹⁰⁸. It must however be appreciated that effective environmental management requires wide coordination and much as there is need to decentralize the management of the environment, there is need to retain a greater

¹⁰⁸ Jesse C. R., (2002), Democratic Decentralisation of Natural Resources: *Institutionalizing Popular Participation*. Washington, World Resources Institute.

of policy at the national level as well as mechanisms for coordination even at the regional and global levels.

The lack of national capacities to plan and coordinate local- level programmes has been exasperated by the increasing number of conditional grants to local governments overstretching their capacity to effectively plan and allocate resources in priority poverty reduction activities. Consequently, problems of financial, human and infrastructure capacity remain¹⁰⁹. Unless these constraints are addressed in totality to enable targeted investments in environmental management, we are unlikely to see sustained improvements in the quantity and quality of the natural resource capital and this could undermine efforts for poverty eradication.

Furthermore, there are still problems of governance at the local government level and concerns about corruption. In Uganda, for example, tendering processes largely involving natural resources are becoming major business for politicians who are trying to cash in on their electoral successes and therefore less emphasis on applying local resources for poverty eradication.¹¹⁰ Addressing these problems will not only require capacity building for local governments, it will also be necessary to build a strong civil society that can independently monitor and hold local government officials to account¹¹¹.

1.8.3 Democratisation and Environmental Integration

Greater democratisation in the region as described earlier, is leading to better integration of environmental issues into government programmes.the steady growth in democratisation in Tanzania and Rwanda has been matched or even surpassed by Kenya, which despite the postelection chaos after the 2007 elections has gotten a new constitution which has shown the way, with similar attempts underway in Tanzania and Uganda- though the latter is yet to kick it off.¹¹². In Tanzania, the government has given due recognition to the issue of institutional and legal reform in the environmental sector from a broad perspective, in order to promote good environmental governance at the national level and is on course to develop a new environmental governance framework accordingly. Equally in Uganda, government has committed to wide stakeholder participation during the revision of the PEAP including explicitly seeking

¹⁰⁹ Ibid.

¹¹⁰ Tumushabe (2005), op cit.

¹¹¹ (PRSP Progress Report 2000/01)

¹¹² Tumushabe, op cit.

representatives from environmental civil society organisations to participate in sector working groups (SWGs) and the formation of a team of experts on cross cutting issues, including environment and natural resources¹¹³.

1.8.4 Governance issues

Governance in its broadest sense is at the core of the debate between environment, poverty and politics – what a recent UNDP report: Regional *Integration and Human Development: A pathway for Africa* refers to as "nature, wealth and power." ¹¹⁴There is no doubt that the environment and natural resources will be the key catalyst to poverty eradication in the region. Because political power is closely intertwined with wealth generated through exploitation of nature, reducing poverty must squarely address the issue of power imbalances over ownership and access to key natural resources assets. It is also tenable to argue that because natural resources are the bread and butter for the poor, it is a compelling vehicle for promoting and consolidating key governance principles of participation, vertical and horizontal accountability, and representation.

1.8.5 Role of civil society organizations

Over the last 10 years, we have seen the evolution of public interest organizations in the three countries working together to improve governance in the context of poverty eradication¹¹⁵. These organizations largely operating with an environmental lens have invested in programmes to promote accountability, transparency and responsiveness in the way the environment is managed, the political decisions with environmental implications are made and the way private sector conducts business. These organizations have initiated and conducted training programmes for the judiciary¹¹⁶; engaged in policy advocacy to strengthen environmental procedural rights in both policy and legislation; (ACODE, 2003) challenged governmental decisions that deprive the poor of their environmental assets including providing pro bono legal services to the poor people; (LEAT) and worked with Government and Parliament to develop new policies and enacting new laws. In all these cases, public interest organizations with active policy and advocacy programmes in the field of environment and environmental rights are proving to be an

¹¹³ (East African Co-operation Development Strategy 1997-2000)

¹¹⁴ UNDP, (2011). Regional Integration and Human Development: A pathway for Africa, Bureau for Development Policy.

¹¹⁵ (ACODE, 2004)

¹¹⁶ ACODE, 2003)

effective vehicle for promoting the triplet objectives of good governance, poverty reduction and environmental protection. By holding government to be accountable in environmental decisionmaking, they are providing a voice to the poor in policy and decision-making. By protecting the environment, they are contributing to protecting poor peoples' assets. And by advocating for responsible and responsive decisions and pro-poor policies and laws, they are helping build a strong foundation for good governance.

Many of these cases have demonstrated that poor people are unable to access judicial and administrative mechanisms for redress and remedy because they are either powerless, they can be ignored or they are not aware of their rights to seek redress and remedy. Current experiences as outlined above suggest that in the foreseeable future, poor people will rely on public interest advocacy organizations to act as a bridge between them and formal judicial and administrative redress systems. Yet, like in all other cases, these public interest advocacy organizations are also limited by capacity constraints and funding constraints which affect their long time viability, independence and autonomy.

1.9 Research Methodology

This section presents research design, target population, sampling design, data collection and procedures for data analysis.

1.9.1 Research Design

The design of this research was a descriptive survey. A descriptive survey seeks to obtain information that describes existing phenomena by asking individuals about their perceptions, attitude, behavior or values¹¹⁷.

1.9.2 Target Population

The target population of the study was the environmental organizations and bodies. thus the main respondents will be specialists on the environment. This was because they have more knowledge which is needed for the study.

¹¹⁷ (Mugenda and Mugenda 2003)

1.9.3 Data Collection

The study utilized the primary data. The questionnaire is an appropriate tool in this study because it allows the respondents to give their responses in a free environment and help the researcher get information that would not have been given out had interviews been done. It therefore avoided interview bias and enables a comprehensive data collection.

The questionnaire comprised of both closed-ended and open ended questions. The closed-ended consisted of a list of possible alternatives from which respondents will be required to select the answer that best describes their situation. The main advantage of close ended questions is that they are easier to analyze since they have structured responses. They are also easy to administer because each item is followed by an alternative answer and is economical to use in terms of time saving. Drop and pick method was used to distribute the questionnaires in the environmental bodies such as the green belt and NEMA.

Besides primary data, the study will also make use of secondary data by gathering established literature on the experience of the EAC in environmental management. This will be obtained from books, journals, articles and internet sources.

1.9.4 Data Analysis and Presentation

The collected data was examined for completeness and comprehensibility. The data was then coded and keyed into the Statistical Package for Social Sciences (SPSS) for analysis. This is a computer aided tool for the analysis that help to generate descriptive statistics such as means, standard deviations and frequency distribution generated the data. Data presentation was done by the use of pie charts, bar charts and graphs, percentages and frequency tables.

This will be backed up by corroborative information obtained from secondary sources which will enable the study to make qualitative inferences from the same.

1.9. 6 Chapter Outline

This research has been presented in five chapters as follows:

Chapter 1: <u>Introduction</u>: This chapter introduces the area of study by identifying the research problem and arguing the relevance of carrying out the study. The chapter details the gap in literature in the literature review and the hypotheses and objectives of the study. The chapter also outlines the research methodology to guide the research.

Chapter 2: <u>Environmental Management in the International Perspective</u>: This mainly lays a background in the concept of environmental management. It traces the origin of this concept and the theories underpinning the operationalisation of this concept. The chapter also identifies the various conventions and international agreements that have been ratified to govern environmental management issues.

Chapter 3: A <u>History of Environmental Management in the East African Community</u>: This chapter traces the growth of environmental awareness and practice in the EAC region. It also identifies the challenges facing the region and proceeds to list the various efforts arrived at to manage these challenges.

Chapter 4: <u>EAC Treaty</u>, <u>Protocols and other Policies and their implications on Environmental</u> <u>Management</u>: This chapter analyses the regional efforts at environmental management and their success at achieving a sustainable management of the resources in the region. It therefore examines the various treaties, protocols and environmental policies and their impact on the region as a whole.

Chapter 5: <u>Recommendations for Sustainable Development in EAC</u>: This is a summary of the key observations of the study. It also offers conclusions based on the findings of the study which subsequently form the basis of the recommendations for the sustainable development of the region.

CHAPTER TWO: ENVIRONMENTAL MANAGEMENT FROM AN INTERNATIONAL PERSPECTIVE

2.0. Introduction

Global environmental concerns have elevated the debate revolving around the subject to that of high level politics while at the same time creating a growing source for interdependence.¹¹⁸ Indeed environmental issues have continued to move up the international agenda since the 1972 Stockholm Conference. Concern over water pollution, air pollution, deforestation, and related basic environmental issues is giving way to a broader ecological security agenda.

Because environmental effects tend to be diffuse and long term and not confined by territorial borders, the international dimensions of environmental problems have long been apparent, whether cross-border industrial pollution, the degradation of shared rivers, or the pollution of adjacent seas. This means therefore what happens in one place affects other areas without regards whether the actions took place within the same territorial boundaries or not. It therefore implies that the issues of environmental management are a collective responsibility, for a failure by one affects others, sometimes to the same degree or even higher.

This chapter examines the growth and development of the concept of environmental management and its application to sustainable development. International focus on environmental management has been a steady concern since the Stockholm Conference. This chapter singles out the theories that have been instrumental in conceptualizing the various agreements and establishing various multilateral regimes. The subsequent establishment of international and regional institutions pointed to an increasing awareness of the negative impact a deteriorating global environment was having on sustainable development. This chapter therefore goes further to examine the challenges in tackling such environmental concerns as the loss of biodiversity, climate change and the depletion of forest cover.

2.1. International Relations Theories and Global Environmental management

International Relations (IR) theories are quite relevant in explaining the successes and challenges in global environmental management. Among them Neo-liberal approaches as articulated by theorists such as Benjamin Constant and John Stuart Mill, John Dewey, William Beveridge, and

¹¹⁸ J.S. Goldstein and J.C. Pevenhouse; International Relations, 9th edition, 2011, pp.385 -387

John Rawls have monopolized the environmental research agenda, which has been conceptualized mainly as the management of interdependence in a system of sovereign states lacking the kind of central authorities assumed to be capable of providing order and regulation within domestic societies.¹¹⁹ The perception of global environmental politics (ecopolitics) has thus become that of global environmental negotiations that seek to achieve effective international cooperation¹²⁰. The international system lacks a central authority to foster environmental protection, and where international governance is about protecting the environment in a Stateless Society^{121.} The purpose of IR studies on the environment is that of promoting the importance of international cooperation in coming to terms with global environmental changes.

Young and Kamieniecki (1993) argue that environmental degradations are 'collective-action problems' and the solution lies in the creation of 'international institutions or regimes' and that 'there is no escaping the need for sustained international cooperation as one component of the overall human response to global environmental changes'¹²². Neoliberalists (Mill and Dewey) suggest that threats to national security should be defined to as actions which reduce the quality of life for a country's inhabitants.¹²³ This therefore introduces the security aspect and suggests that the future international conflicts will likely be caused by resource scarcity. Thus the concept of environmental security – recognizing that environmental threats to global life systems are as dangerous as the threat of armed conflict, is today very relevant to consider alongside state security.

Buzan and Hansen (2009) propose to expand the 'logic of security' beyond territorial defence, national interests and nuclear deterrence to include 'universal concerns' and the prevention of conflicts, but also crucially a cooperative global effort to eradicate poverty and underdevelopment. To them, human security was about ensuring the overall wellbeing of man anywhere on the planet. This implies a concerted effort at harnessing and using the planet's resources with a view of minimizing any negative effect to the environment.¹²⁴

Whereas neoliberalists believes explain why and the compelling need for states to cooperate in managing the environment, Realists believe that states actions are based on national interests

¹¹⁹ Campbell,()2011), *The Rise of Neo-Liberalism*, op cit.

¹²⁰ Porter, Gareth and Brown, Janet Welsh (1991) Global Environmental Politics.p17

¹²¹ Young, Oran R. (1994) International Governance. Protecting the Environment in a Stateless Society.

¹²² Young, Oran R. (1993a) International Organizations and International Kamieniecki, *Environmental Politics in the International Arena*, pp. 145–64.

¹²³ Charles W. Kegley, JR,; World Politics, Trends and Transformation, eleventh edition, 2007; pp.366

¹²⁴ Buzan, B., & Hansen L.,(2009), *The Evolution of International Studies*, Cambridge, Cambridge University Press, p. 203.

defined in terms of power rather than morality where states as autonomous actors rationally pursuing their own interests in an international system of sovereign states without a central authority¹²⁵. Since one of the elements of power is economic development, in terms of GDP, there is a motivation for states to mindlessly exploit resources to benefit themselves. Environmental protection brings with it some responsibilities which conflict with the realists, because it requires a restraint in the utilization of resources, or incurring expenses to clean up the waste generated by our consumptions thereby reducing on the profits – the resources that count in state power.

2.2. Key Global Environmental challenges:

2.1.1. Climate Change – Global Warming

Climate Change or global warming is the long term rise in the average global temperature. This is attributed to accumulation of Green House Gases (GHG) - Carbon Dioxide, Methane gas, Chlorofluorocarbons (CFCs), and nitrous oxides in the atmosphere.¹²⁶ It is now widely recognized, after growing and compelling evidence that global warming over the past 50 years is largely due to human activities that have released greenhouse gases into the atmosphere. It s reported that the global average surface temperature has increased by about 0.6°C during the 20th century¹²⁷. The seemingly small rise of mean temperature is already showing adverse effects. One of the consequences has been a rise in the global average sea level. Another effect has been more change in weather patterns resulting in extreme conditions of excess rainfall at one time and droughts in another. The world's emissions of greenhouse gases continue to increase. As a result, global surface temperature is expected to increase by 1.4 to 5.8 degrees Celsius from 1990 to 2003.¹²⁸ The repercussions of climate change will disproportionately affect those who are least able to adapt – the poor and the most vulnerable sections of society, including children. For the world to reverse this trend therefore they must either be prepared to cut down on the emissions, which means burning less of the hydrocarbons, or develop mechanisms to absorb the emissions such as planting trees to act as carbon sinks.

¹²⁵ Hans Morgenthau, politics amongst nations, 6th edition (1985)

¹²⁶ Litfit, Karen; Ozone Discussions – Science and politics in global environmental cooperation

¹²⁷ Intergovernmental Panel on Climate Change (IPCC), 2007

¹²⁸ IPCC(2007).

2.1.2. Loss of Biodiversity

Due to human's destruction of the ecosystems, large numbers of species of plants and animals are already extinct¹²⁹. Extinction results from activities which affect the balance of the ecosystem, such as overgrazing, overfishing or introduction of alien species that crowd out the previous inhabitants. Due to complex interrelations in the ecosystems, an extinction of one species may have a widespread effect on the environment. The activities that lead to ecosystem destruction, such as deforestation are economically profitable, thus the preservation of the species calls for collective action.

2.1.3. Ozone Layer depletion

Ozone is the atmosphere's upper layer which protects humans, animals and plants from the harmful effects of UV-B radiation from the sun and without it, all life on earth would cease to exist.¹³⁰ However, the use of chlorofluorocarbons (CFCs) and other ozone-depleting substances (ODS) are slowly eating away at the stratospheric ozone layer, creating a major potential health hazard. While the concentrations of ODS in the lower atmosphere peaked in about 1994 and is now slowly declining due to worldwide efforts to phase out the use of CFCs and other damaging substances (for instance through carbon trading and the exploitation of more renewable sources of energy) significant health threats relating to ozone depletion persist¹³¹. Past (and current) emissions of ODS result in increases of ultraviolet radiation reaching the Earth's surface which can pose several health effects. Skin cancer is the most worrisome health impact of ozone depletion. Over-exposure to the sun's harmful ultraviolet (UV) light may damage children's skin.

2.1.4. Land degradation and Deforestation

The IPCC in its report "*Climate Change 2007: The Physical Science Basis*" noted that the removal of trees decreases the ability of the soils to absorb and retain water; thus contributing to the depletion of the groundwater aquifers, which supply about one-third of the world's population.¹³² Aquifers are the sole source of water for many rural communities worldwide. Major causes of deforestation and forest degradation lie outside the forest sector and include the need to create agricultural land and to harvest fuel wood for food and energy. Cleared lands stripped of their tree cover also are more susceptible to erosion which degrades fertile lands and

 ¹²⁹ J.S. Goldstein and J.C. Pevenhouse; *International Relations*, 9th edition, 2011, 394 - 395
 ¹³⁰ Ihid

¹³¹ Litfit, Karen; Ozone Discussions – Science and politics in global environmental cooperation

¹³²Intergovernmental Panel on Climate Change (IPCC), "Climate Change 2007: The Physical Science Basis"

silts waterways, lakes, rivers and coastal waters, thereby degrades water quality for human consumption and disrupts ecosystem processes by choking fish hatcheries, coral reefs, etc; decreased groundwater recharge because the barren soils do not infiltrate water as effectively and Desertification and drought. Deforestation is also intrinsically linked to the loss of biodiversity as original rain forests host numerous species of precious fauna and flora

2.2. Environmental Cooperation in a Globally Interdependent World

Interest in the environment has grown steadily since the first Earth Day organized by environmental activists in the 1970¹³³. The first UN conference on the international Environment was held in Stockholm, Sweden in 1972. This UN's first major global environmental meeting of governments adopted general principles that one state's actions should not cause environmental damage to another and raised awareness about international aspects of environmental damage. The Conference resulted in a Declaration containing 26 principles concerning the Environment and Development;¹³⁴ The conference led up to the formation of the UN Environment Program (UNEP) in 1972 which, since its inception, was tasked with coordinating the environment related activities of other UN agencies and promoting the integration of environment considerations into their work.

A second conference was held at the UNEP headquarters, Nairobi in 1982 and in 1992, the Earth Summit was held in Rio de Janeiro, Brazil, which brought together more than a hundred state leaders. The theme of the summit was the state of world climate and the need to handle the issue of climate change. The fourth conference took place in Johannesburg, South Africa, in 2002. The 1992 Rio Earth Summit founded *The UN Framework Convention on Climate Change (UNFCCC)*, which is universally recognized to be the appropriate Global Forum to tackle the problem of Climate Change. The Convention enjoys a near-universal membership with 196 Parties. The ultimate objective of the Convention is to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system. This convention is complemented by the 1997 Kyoto Protocol, which has 176 Parties. Under this treaty, which came into force in 2005, 36 industrialized countries and the European Community committed to reducing their emissions by an average of 5% by 2012 against 1990

¹³³ Desombre, E. R. The global environment and the World Politics; International relations of the 21st Century.

¹³⁴ an Action Plan with 109 Recommendations spanning 6 broad areas (human settlements, natural resource management, pollution, educational and social aspects of the environment, development and the environment, and international organizations); and a Resolution on various institutional and financial arrangements.

levels. A key output of this Convention is the so called Agenda 21¹³⁵, which is a comprehensive programme of action to be implemented by Governments, development agencies, United Nations organizations and independent sector groups in every area where human (economic) activity affects the environment. Agenda 21 in its section identifying challenges explained that population; consumption and technology were the primary driving forces of environmental change and for the first time, at an international level, explicitly linked the need for development and poverty eradication with progress towards sustainable development.

The Brundtland Report (Our Common Future) which was produced in 1987 by the World Commission on Environment and Development also laid the foundations for the Environment Principles. This landmark document highlighted that people needed to change the way they lived and did business or face unacceptable levels of human suffering and environmental damage. These environmental principles provide an entry point to address the key environmental challenges, in respect to research, innovation, co-operation, education, and self-regulation that can positively address the significant environmental degradation, and damage to the planet's life support systems, brought by human activity.

Sustainable development has become a global issue both because of the high levels of economic interdependence that exist within many parts of the global economy and because it raises fundamental questions concerning the distribution of wealth, power and resources between the global North and South. Indeed, it is no longer possible to treat ecology and international political economy as separate spheres.

2.3. Key Actors in Global Environmental Management

UNEP (along with UN Habitat) provides leadership and encourages partnerships to care for the environment. UNEP has also initiated much of the present day international environmental law while at the same time playing a key role in raising political awareness of environmental problems, helping with the scientific consensus on problems and resources available to them; and facilitating negotiations (particularly for the protection of regional seas and the air); and improving countries' environmental management capacities.

Environmental NGOs such as African Conservation Tillage Network (ACT), African Fund for Endangered Wildlife (AFEW), and African Biodiversity Network (ABN) among others

¹³⁵ Agenda 21 is a non-binding, voluntarily implemented action plan of the United Nations with regard to sustainable development

command sufficient expertise and resources that have made them become a substantial force in Environmental international politics. They occupy an important place in issue identification, agenda setting, policy formation, normative development, institution building, monitoring & implementation.¹³⁶ They also play a major role in changing public and political attitudes towards the environment and placing environmental issues high on the political agendas of States; by publicizing the nature and seriousness of environmental problems NGOs are also involved in the process of rule-making and regime formation: influencing the drafting of agreements, providing input to scientific or policy working groups and supporting friendly States. Notable examples include the World Wide Fund for Nature (WWF) at the global level and Green Belt Movement at the local level. NGOs are also very actively involved in international meetings and through their easy access to the media and technical expertise; they are able to shape the international agendas. Industrial/Business Associations (MNCs) representing interest groups in the business community, also participate & seek directly shape international environmental regimes, rather than work through their governments.

2.4. Challenges in Managing the Global Environment:

Despite a general consensus that there is need to manage the environment, the underlying concern with is how to enforce protocols that aim at safeguarding the global environment in fragmented political system made up of over 193 sovereign states and numerous other actors, which requires a high level of co-operation and policy co-ordination to manage the problems on a global scale. Due the high level of awareness and concern about environmental issues which has grown substantially since the late 1960s, there are a wide range of agreements, institutions and regimes for international environmental governance that have been developed. Much international political activity related to the environment has focused on the development and to some extent implementation of these regimes.¹³⁷ The interaction between continued economic development and the complex and fragile ecosystems on which that development depends is a major international political issue. Environmental degradation affects the political and security interests of developed and developing countries, albeit at varying degrees. For instance, environmental problems undermine the economic base and social fabric of weak and poor states, generate or exacerbate intra or inter-state tensions and conflicts, and stimulate refugee

¹³⁶ Desombre, E. R. The global environment and the World Politics; International relations of the 21st Century.

¹³⁷ Ibid.

problems¹³⁸. There is indeed a close relationship between the generation of environmental problems and the workings of the now globalized world economy.

Despite the seemingly obvious incentives to cooperate, global co-operation is viewed as politically problematic principally because of the fragmentation of the international political system. A single, complex and highly integrated ecosystem has to be managed within the constraints of a political system made up of sovereign States, each claiming sovereign authority within its territory which is often exacerbated by historical conflicts that make co-operation difficult to achieve¹³⁹.

Although international co-operation is required both to manage global environmental problems and to deal with domestic environmental problems in ways that do not place individual states at a political or competitive disadvantage, states will not participate in any co-operative efforts unless there is some guarantee that other states will do likewise. This assurance problem is exacerbated by the pressures on state representatives to further their national interests. The challenge is that the main culprits are the world's great powers, economically and therefore measures to enforce compliance such as economic sanctions cannot be effectively applied on them. For instance, the USA has never committed itself to the Kyoto protocol.

Another major challenge is the categorization of states into various levels of development, assumed to be equivalent to their relative contribution to environmental damage. For example, China has overtaken USA in the amount of emissions to be the highest in the world, yet it is classified as a developing country¹⁴⁰. The forms of co-operation that emerged historically between States were largely concerned with elaborating minimum rules of coexistence built around the mutual recognition of sovereignty, autonomy and the norm of non-interference in each other's internal affairs.¹⁴¹ This traditional international political and legal system of sovereign States, now runs counter the logical approach of shared responsibilities and duties for the common good of the planet as a whole. The World has collectively failed to appreciate the scale and urgency of the problem. States often prefer to agree only to non-binding guidelines or principles which they view as targets rather than firm obligations and whose implementation is largely on a voluntary basis. Most of the agreements are in form of treaties, which bind only

¹³⁸ Kegley, C., JR, (2007) World Politics, Trends and Transformation, eleventh edition,; pp.378

¹³⁹ Ibid, pp 368

¹⁴⁰ Michael P. V., Climate Change: The China problem, *Southern California Law Review*- Vol 81: 905 pp.914.

¹⁴¹ Kingsbury, op cit.

those States that become Parties to them; even so states are permitted to make reservations to specific Articles. Treaties may contain deliberately ambiguous language designed to secure consensus.

2.4. International Responses to Environmental Challenges in the Context of Sustainable Development

The United Nations Conference on Environment and Development (UNCED) held in Rio de Janiero in 1992 popularly known as the "Earth Summit" launched the international debate on sustainable development that recognizes the inter-linkages between environment, economic and social development issues.¹⁴² The Earth Summit focused on providing pathways to halting destruction of irreplaceable of natural resources and reducing environmental pollution. Governments were challenged to rethink their approaches on sustainable development in a changing environment. The Summit further recommended the integration of the three aspects of environment, economic and social issues into sustainable development decision making by the international community.¹⁴³ Over 20 years, later, the outcome of the Earth Summit has had a significant influence on subsequent UN conferences on environment and development. The Earth Summit produced five international policy documents, conventions and declarations on environment and sustainable development existing in form of;

"hard and soft laws". These include:

(i) The United Nations Framework Convention on Climate Change (UNFCCC)-1972

- (ii) Agenda 21 -1992
- (iii) The Convention on Biological Diversity (CBD);

(iv) The Rio Declaration on Environment and Development;-1992 and;

(v) The Statement of Forest Principles 144 -1992.

As a follow up to the Earth Summit, the EAC Partner States have signed and ratified two Rio Conventions:

(i) The United Nations Framework Convention on Climate Change (UNFCCC).1972.

¹⁴² UNDP (2007).

¹⁴³ UNDP(2007).

¹⁴⁴ UN, 1992; Report of the UN Conference on Environment and Development held in Rio de Janeiro (3-14 June 1992)

(ii) The Convention on Biological Diversity (CBD) 1992 Other regional and international conventions and treaties on environment and natural resources that the EAC Partner States are Party to include:

(i) The Eastern Africa Regional Agreement on Air Pollution (the Nairobi Agreement),(2008);

(ii) Nile Basin Cooperative Framework Agreement (NBCFA);

(iii) Bamako Convention on the Ban of the Importation into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa;

(iv) The United Nations Framework Convention, on Climate Change (UNFCCC), (1992);

(v) The Kyoto Protocol to the UNFCCC (1997);

(vi) Cartagena Protocol on Biosafety to the CBD; (2005);

(vii) Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the CBD, (2010)

(viii) United Nations Convention to Combat Desertification (UNCCD) particularly in Africa (2011).

(ix) Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITIES), (1973);

(x) Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat, (1979);

(xi) Basel Convention on Control of Transboundary Movements of Hazardous Wastes and their Disposal (1989);

(xii) Stockholm Convention on Persistent Organic Pollutants (POPs), (2001);

(xiii) Geneva Convention on Biological Toxins and Weapons (1991);

(xiv) United Nations Convention on the Law of the Seas (1982);

(xv) Vienna Convention for the Protection of the Ozone Layer (1985); and

(xvi) Montreal Protocol on Substances that Deplete the Ozone layer (1987) among others.

In addition, the EAC Partner States are also committed to implement the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all Types of Forests, also known as the "Forest Principles" as part of Agenda 21.

2.5. Regional and Multilateral Environmental Agreements (MEAs)

The main instrument available under international law for countries to collaborate on a broad range of global environmental challenges is international conventions and treaties on environment and natural resources also known as Multilateral Environmental Agreements (MEAs). MEAs are agreements between states which may take the form of "soft-law", setting out non- legally binding principles which parties are obligated to consider when taking actions to address a particular environmental issue, or "hard-law" which specify legally-binding actions to be undertaken toward an environmental objective.¹⁴⁵ Amongst the global environmental issues that MEA are designed to respond to include; loss of biological diversity, adverse impacts of climate change, depletion of the ozone layer, hazardous waste, organic pollutants, marine pollution, trade in endangered species, destruction of wetlands etc.

Although international treaties are legally binding on the Parties and the Parties are obligated to implement the convention and treaties, they do not replace national laws. On the contrary, Parties have to adopt their own domestic legislations to ensure the conventions and treaties are implemented at the national level.

According to the Register of International Treaties and Other Agreements in the field of the Environment, there are over 272 international conventions, treaties and their related instruments such as amendments in the field of environment¹⁴⁶ (UNEP, 2005).

2.6. International Conventions and Treaties on Environment Ratified by EAC Partner States

The EAC Partner States have ratified a number of Treaties, Conventions and other international agreements, which bind them to operate within the provisions set out in the respective agreements. This is a positive step because the obligations that bind them are not only the regional ones but even those at the global level.

2.6.1. United Nations Framework Convention on Climate Change (UNFCCC)

The United Nations Framework Convention on Climate Change (UNFCCC) was adopted at the United Nations Headquarters, New York on 9th May 1992 with an aim of setting an overall

¹⁴⁵ Buzan, B., (2009), op cit.

¹⁴⁶ UNEP (2005)

framework for intergovernmental efforts to tackle the challenge posed by climate change. The ultimate objective of the Convention and its related legal instrument (the Kyoto Protocol) adopted by the Conference of Parties is to stabilize greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a sufficient timeframe to allow ecosystems to adapt naturally to climate change (UNFCCC, 1994). The Convention recognizes that the climate system is a shared resource whose stability can be affected by greenhouse gases (GHGs), mainly carbon dioxide (CO_2) and other industrial gaseous emissions and aerosols.

According to various sections of the Convention, parties to the Convention are under obligation to:

(a) Gather and share information on greenhouse gas emissions, national policies and best practices;

(b) Launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries;

(c) Cooperate in preparing for adaptation to the impacts of climate change.

The UNFCCC was first opened up for signatories at the Rio Earth Summit on 4- 14th June 1992 and thereafter from 20th June 1992 to June 1993 in accordance with Article 20. Pursuant to Article 22, the Convention is subject to ratification, acceptance and approval or accession by States and regional economic cooperation and integration organizations. There is a provision for States and Regional Economic Communities (RECs) like EAC that have not signed the Convention to accede to it anytime. The Convention entered into force on 21 March 1994, in accordance with Article 23, that is on the ninetieth day after the date of deposition of the fiftieth instrument of ratification, acceptance, approval or accession. The Convention currently has 165 signatories and enjoys near universal membership with 196 Parties (195 States and 1 regional economic bloc- the European Union (UNFCCC website).

2.6.2. The Kyoto Protocol to the UNFCCC

The Kyoto Protocol (KP) is a legally binding international agreement/treaty with practical measures on realizing the objective of the UNFCCC. The Protocol was adopted at the 3rd Conference of Parties to the UNFCCC in Kyoto, Japan on 11th December 1997 and entered into force on 16th February 2005. The detailed rules for the implementation of the Protocol were

adopted at COP7 in Marrakesh, Morocco in 2001 and are called the Marrakesh Accords. The major feature of the Kyoto Protocol is that it sets binding target for GHG emission reductions amounting to an average of 5% against 1990 levels over a five-year period of 2008-2012 referred to as the first commitment period. These targets only apply to 37 industrialized countries and the European Community (EC) contained in the Annex I of the Convention. The major distinction between the Protocol and the Convention is that while the Convention encouraged industrialized countries to stabilize GHG emissions, the Protocol legally commits them to do so.

The Protocol recognizes that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity. The Protocol places a heavier burden on developed nations under the principle of 'common but differentiated responsibilities." Under the Treaty, countries are obligated to meet their targets primarily through national or domestic emission reduction measures. The Kyoto Protocol has a provision for countries to meet their emission reductions targets and commitments through three flexible market-based mechanisms. These are;

- (a) Emissions Trading (ET) commonly referred to as "Carbon Market";
- (b) Clean Development Mechanism (CDM); and
- (c) Joint Implementation (JI).

2.6.3. Convention on Biological Diversity (CBD)

The Earth's biological resources are vital to humanity's economic and social development. As a result, there is a growing recognition that biological diversity is a global asset of tremendous value to present and future generations. At the same time, the threat to species and ecosystems has never been greater than it is today.

In response, to the unprecedented loss of species and ecosystems, including degradation and extinction caused due to human activities continues, the United Nations Environment Programme (UNEP) convened the Ad Hoc Working Group of Experts on Biological Diversity in November 1988 to explore the need for an international convention on biological diversity. Soon thereafter the Ad Hoc Working Group of Technical and Legal Experts was established in May 1989 to prepare an international legal instrument for the conservation and sustainable use of biological diversity. The experts were to take into account "the need to share costs and benefits between developed and developing countries" as well as "ways and means to support innovation by local people". By February 1991, the Ad Hoc Working Group had become known as the

Intergovernmental Negotiating Committee. The process culminated with the Nairobi Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity on 22'd May 1992.

The Convention was opened for signature on 5th June 1992 at the United Nations Conference on Environment and Development (the Rio "Earth Summit"). It remained open for signature until 4th June 1993, by which time it had received 168 signatures. The Convention entered into force on 29th December 1993, 90 days after the deposition of the 30th instrument of ratification. The first session of the Conference of the Parties was scheduled for 28th .November — 9th December 1994 in the Bahamas.

The Convention on Biological Diversity inspired by the world community's growing commitment to sustainable development represents a dramatic step forward in the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the use of genetic resources.

2.6.4. The Cartagena Protocol on Biosafety (CPB)

The Cartagena Protocol on Biosafety to the Convention on Biological Diversity is an international treaty governing the movements of living modified organisms (LMOs) resulting from modern biotechnology from one country to another. It was adopted on 29th January 2000 as a supplementary agreement to the Convention on Biological Diversity and entered into force on 11th September 2003.

The Protocol seeks to protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology. It establishes an advance informed agreement (AIA) procedure for ensuring that countries are provided with the information necessary to make informed decisions before agreeing to the import of such organisms into their territory. The Protocol contains reference to a precautionary approach and reaffirms the precaution language in Principle 15 of the Rio Declaration on Environment and Development. The Protocol also establishes a Biosafety Clearing-House to facilitate the exchange of information on living modified organisms and to assist countries in the implementation of the Protocol.

2.6.5. The Nagoya Protocol on Access and Benefit Sharing (ABS)

The Nagoya Protocol of 2010 on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) is a Supplementary agreement to the Convention on Biological Diversity. It provides a transparent legal framework for the effective implementation of one of the three objectives of the CBD: the fair and equitable sharing of benefits arising out of the utilization of genetic resources through; appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

Its objective is the fair and equitable sharing of benefits arising from the utilization of genetic resources, thereby contributing to the conservation and sustainable use of biodiversity.

The Nagoya Protocol will create greater legal certainty and transparency for both providers and users of genetic resources by:

(i) Establishing more predictable conditions for access to genetic resources;

(ii) Helping to ensure benefit-sharing when genetic resources leave the contracting party providing the genetic resources.

The Nagoya Protocol sets out core obligations for its contracting Parties to take measures in relation to:

(i) Access to genetic resources;

(ii) Benefit-sharing; and

(iii) Compliance.

The Protocol was adopted by the Conference of the Parties to the Convention on Biological Diversity at its tenth meeting on 29 October 2010 in Nagoya, Japan and will enter into force 90 days after the fiftieth instrument of ratification. The Nagoya Protocol will be open for signature by Parties to the Convention from 2 February 2011 until 1 February 2012 at the United Nations Headquarters in New York.

The Protocol has so been signed by 6 Parties including one EAC Partner States, Rwanda. Other signatories include; Algeria, Brazil, Colombia, Mexico and Yemen.

(vi) The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Annually, international wildlife trade is estimated to be worth billions of dollars and to include hundreds of millions of plant and animal specimens. In one of its recent reports released in Geneva in June 13 2014, CITES notes that – Over 20,000 African elephants were poached across the continent in 2013.¹⁴⁷ Although the sharp upward trend in illegal elephant killing observed since the mid-2000s, which had peaked in 2011, is leveling off, poaching levels remain alarmingly high and continue to far exceed the natural elephant population growth rates, resulting in a further decline in elephant populations across Africa. The trade is diverse, ranging from live animals and plants to a vast array of wildlife products derived from them, including food products, exotic leather goods, wooden musical instruments, timber, tourist curios and medicines.¹⁴⁸

CITES was drafted as a result of a resolution adopted in 1963 at a meeting of members of IUCN (The World Conservation Union). The Convention was finally agreed at a meeting of representatives of 80 countries in Washington DC., United States of America, on 3 March 1973, and on 1 July 1975 CITES entered in force.

The aim of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITIES) is to ensure that international trade in specimens of wild animals and plants does not threaten their survival. When the ideas for CITES were first formed, in the 1960s, international discussion of the regulation of wildlife trade for conservation purposes was something relatively new.

(vii) Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat

The initial call for an international convention on wetlands came in 1962 during a conference which formed part of Project (MAR in full?), a programme established in 1960 following concern at the rapidity with which large stretches of marshland and wetlands in Europe were being "reclaimed" or otherwise destroyed, with a resulting decline in numbers of waterfowl.

The Convention on Wetlands of International Importance, called the "Ramsar Convention", is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The Convention's Mission is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development

throughout the world". The Convention entered into force in December 1975, upon receipt by

¹⁴⁷ CITES (2014)

¹⁴⁸ Ibid.

UNESCO, the Convention Depositary, of the seventh instrument of accession to or ratification of the Convention, which came from Greece. The Convention celebrated its 25th anniversary in 1996 and now has Contracting Parties from all regions of the world.

(viii) The Forest Principles

The issue of forests has been a priority on the international policy and political agendas for the past 15 years. At the 1992 United Nations Conference on Environment and Development (UNCED) the forestry was among the most controversial, polarizing developing and developed countries: In Rio de Janeiro, Brazil, intense negotiations among governments at UNCED resulted in the Non Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all Types of Forests, also known as the "Forest Principles", as well as Chapter 11 of Agenda 21 addressing issues related to combating deforestation.

Significant progress has been made since UNCED. Throughout this last decade, the main focus within the international community has been to develop coherent policies to promote the management, conservation and sustainable development of all types of forests. The Intergovernmental Panel on Forests (IPF), from 1995 - 1997, and the Intergovernmental Forum on Forests (IFF) from 1997 - 2000, both under the auspices of the United Nations Commission on Sustainable Development (UNSD), were the main intergovernmental fora for international forest policy development. An informal, high level Interagency Task Force on Forests (ITFF) was set up in July 1995 to coordinate the inputs of international organizations to the forest policy process.

(ix) The United Nations Forum on Forests (UNFF)

This is an intergovernmental policy forum established in October 2000 by the Economic and Social Council of the United Nations (ECOSOC), in its Resolution 2000/35. The main objective of UNFF is to promote "... the management, conservation and sustainable development of all types of forests and to strengthen long-term political commitment to this end..."based on the Rio Declaration, the Forest -Principles, Chapter 11 of Agenda 21 and the outcome of the IPF/IFF Processes and other key milestones of international forest policy. The Forum has universal membership of all Member States of the United Nations and specialized agencies.

(j) The United Nations Convention on Combating Desertification (UNCCD)

The international community has long recognized that desertification is a major economic, social and environmental problem of concern to many countries in all regions of the world. In 1977, the United Nations Conference on Desertification (UNCOD) adopted a Plan of Action to Combat Desertification (PACD). Unfortunately, despite this and other efforts, the United Nations Environment Programme (UNEP) concluded in 1991 that the problem of land degradation in arid, semi-arid and dry sub-humid areas had intensified, although there were "local success stories". The question of tackling desertification was still a major concern for the United Nations Conference on Environment and Development (UNCED), which was held in Rio de Janeiro in 1992. The Conference supported a new, integrated approach to the problem, emphasizing action to promote sustainable development at the community level. It also called on the United Nations General Assembly to establish an Intergovernmental Negotiating Committee (INC) to prepare a Convention to Combat Desertification, particularly in Africa, by June 1994.

The Convention was adopted in Paris on 17th June 1994 and opened for signature there on 14th to 15th October 1994. It entered into force on 26th December 1996, 90 days after the fiftieth instrument of ratification was deposited. By August 2009, 193 countries were Parties to the Convention.

2.7 Conclusion:

The Clash between the character of the international system and the necessity of collective environmental management challenges the suitability/capacity of the Sovereign State System to cope with an endangered-planet. Managing the environment demands not only high levels of co-operation but also policy co-ordination. There is need therefore for continued and even higher degree of global co-ordination either for effective ecological management or out of considerations of social equity. This is not withstanding the highly diverse range of Actors, including MNCs & environmental NGOs.

The fact that large numbers of international environmental agreements have been reached and numerous environmental regimes created is important and encouraging, but may not be enough to generate compliance. Very few Environmental Treaties contain inescapable requirements that invite sanctions for non-compliance. To meet the range of interests and to persuade states to participate, incentives in the form of differential obligations, financial inducements and mechanisms to facilitate the transfer of relevant technology or market access are offered. This raises the fear that some will formally agree and sign and ratify the protocol but then subsequently defect and fail to comply. Overall, Sovereignty questions remain the focus of much actual and potential political conflict.

By and large, environmental law and environmental regimes facilitate co-operation because of the functional benefits which they provide in the form of an International system, based not on coercion, but on the co-ordination of collectively beneficial interests.

CHAPTER THREE: A HISTORY OF ENVIRONMENTAL MANAGEMENT IN THE EAST AFRICAN COMMUNITY

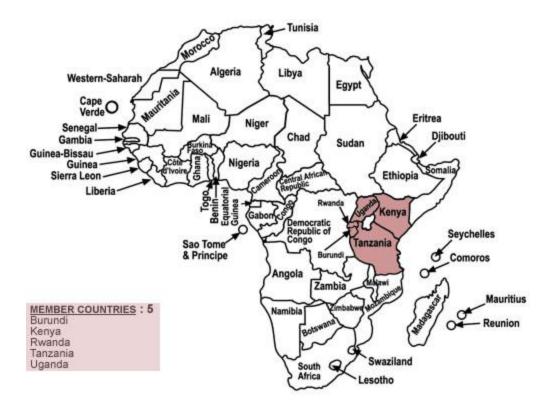
3.0 Introduction

The East African Community is one of the regional integration efforts on the African continent which seeks to create a major regional bloc to assist the countries in the region to competitively participate in the global trading arena. This study has selected this region to case study environmental management efforts and how it is coping with environmental issues. The region has not been left behind in grappling with challenges being posed by years emergent threats to sustainable development brought about by decades of neglecting sound environmental management practices. This, coupled by the emphasis on economic growth in a largely capitalistic environment has sidelined conservation, natural resource management and the need to guard against desertification and global warming.

Kenya, Uganda, Tanzania, Rwanda and Burundi, the partner states in this fledgling Community face more or less the same environmental challenges. To fully understand the problems facing the region, this chapter outlines the historical background of the community before examining those problems. It is also important to mention the growth of the concept of environmental management and how the region has resolved to handle these challenges. The chapter also seeks to understand why there has been limited success in having a uniform regime to tackle these challenges.

3.1 A Historical Background to the EAC

The EAC is an intergovernmental organization that brings together five countries from the Eastern Africa which include Kenya, Uganda, Tanzania, Rwanda and Burundi. Although South Sudan and Sudan have applied to join the community, they are yet to satisfy the requirements, with doubts rising about the latter as to its "East Africanness."



EAC Member States

Source: United Nations Economic Commission for Africa, accessed at http://www.uneca.org/oria/pages/eac-east-african-community-0

It is the result of the signing of the treaty for its establishment by the original Partners, Kenya, Uganda and Tanzania on 30th November 1999 and its subsequent entry into force on 7th July, 2000. Rwanda and Burundi joined the EAC in 2007.¹⁴⁹ The new integration agenda plans for the creation of a monetary union before the end of 2015, with the East African shilling as common currency. It also proposes the creation of a common market and a political union by the end of 2010, with an East African Federation and a common East African President.¹⁵⁰

Prior to the re-launch of the EAC in 1999, Kenya, Uganda and Tanzania had enjoyed a long history of cooperation under successive regional integration arrangements dating back to the

¹⁴⁹ EAC Secretariat.

¹⁵⁰Ramdoo, I. Mackie, J, et al, (2010). Joining up Africa: *Support to Regional Integration*.

colonial period. These include a customs union between Kenya and Uganda in 1917, which Tanganyika joined in 1927.¹⁵¹ Other mechanisms were the East African High Commission (1961–1967); the East African Common Services Organizations (1961–1967); and the previous EAC common market, which lasted from 1967 to 1977 when it collapsed. The other two countries, Rwanda and Burundi, joined in 2009¹⁵².

Kenya, Uganda and Tanzania – the original EAC Member States – exhibit a fairly homogenous historical and cultural outlook. The three share a similar colonial heritage, which formed the basis for integration in the post-colonial era. But even as the British bequeathed a common infrastructure and homogeneity in the social and cultural sphere in East Africa, it also left behind a legacy of inequalities in the levels of development among the three countries, with Kenya enjoying the highest level and Tanzania the lowest. This inequity has manifested itself in many ways. For example, Kenya was able to integrate into the international capitalist market much better than Tanzania and Uganda. The situation was not made any better by the differing ideologies that the countries pursued immediately after independence; with Kenya pursuing a more market-oriented approach while Tanzania opting for socialistic traits¹⁵³.

The other two members, Rwanda and Burundi, also share a common history. They both became Belgian colonies in 1918 after Germany's defeat in the First World War. They have similar socio-economic characteristics, as well as geographical ones. They are both small and nearly the same geographic size (27,834 square kilometres for Rwanda and 26,338 square kilometres for Burundi). Moreover, the history of both countries has largely been characterized by different political conflicts¹⁵⁴.

3.1: EAC Environmental Policy Making Process

The three founding partners of the EAC have had different policies on environment. Apart from the attributes accredited to the three countries i.e Kenya, Tanzania and Uganda. The EAC partners are primarily informed by international environmental instruments and the EAC Protocol on the environment. This is evident from the replication of, among others, the objectives of the legislation, the environmental principles, the institutions established under each

¹⁵¹ Ibid

¹⁵² SID, 2011 ¹⁵³ (EAC (2009) ¹⁵⁴ (EAC (2009)

piece of legislation, the need to carry out EIA for all major projects including road projects, the management of various resources, such as , land , water, forests, wild life, biodiversity, use of criminal sanctions. Similarly, all the partner states have ratified a number of multilateral environment agreements , such as, the convention on Biological Diversity 1992; African Convention Concerning the Protection of the World Cultural and Natural Heritage(1972).

The Summit is composed of the Heads of State or Government, whose main mandate is to ensure that the organization is pursuing its objectives in conformity with the obligations of the treaty. Its other operational functions include, among other things, reviewing progress on political federation; considering and approving annual reports; and assenting to Bills of the EALA. The Bills assented to by the Summit become the Acts of the Community. The treaty also confers legislative powers on the Summit, a statutory responsibility which has the potential of undermining the role of the EALA. Article 11 (6) of the treaty provides that "An Act of the Community may provide for the delegation of any powers, including legislative powers, conferred on the Summit by this treaty or by any Act of the Community, to the Council or to the Secretary General". Unless an extraordinary meeting is requested by a member state, the Summit holds its meetings once a year, with the Office of the Chairperson held on rotational basis.

The decisions of the Summit during its meetings are arrived at through a consensus, a process which not only allows debate among the members but that it discourages the winner-take-all system inherent in the majority rule. More, specifically, by incorporating consensus as the most viable option for decisions within the Summit meetings, the founding fathers took cognizance of the difficulties the EAC may face if a stalemate arises over an issue. Disagreements within the Authority of Heads of State or Government of the EAC I, the equivalent of the EAC II Summit, particularly between Presidents Nyerere and Idi Amin Dada of Uganda in the early 1970s, was one of the key factors that rendered the operations of the treaty took cognizance of the potential of such a disagreement i.e if a stalemate were to encroach the Summit deliberations.

3.1 Environmental Issues in the East African Region

East African Community (EAC) partner states and the region at large are richly endowed with various environmental/natural resources that are drivers for local livelihoods, national and

regional economies and development. These include: arable land, water resources, fisheries, livestock, wildlife, forests, wetlands, coastal and marine and mountainous ecosystems, minerals and energy resources, and biodiversity. These resources transcend national boundaries and are part of some of the most crucial trans-boundary regional resources. The economic development of the Partner States and the region is adversely affected by dynamic social, economic, environmental and political factors. These include: population growth, economic activities, land use and consumption patterns and climate change.

3.1.1. Trans boundary Ecosystems in East Africa

A number of natural resources in the East African Region transcend the territorial boundaries of the states. Environmental Impact Assessment (EIA) guidelines are area specific. For the purposes of these Guidelines, the relevant area is referred to as the 'trans-boundary area' between any or all of the three Partner States. Determination of spatial boundaries of the impact area requires consideration of both the way in which development project activities are likely to impact on the surrounding environment, and to the way in which the environment is likely to impact on the projects. It is important to determine whether impacts are likely to occur at a local, regional, national or international level. Thus, for example, hydropower development projects within the impact area can have wide ranging spatial implications downstream and upstream while the project itself may be impacted by activities in the catchment area above the project site.

3.3: Relevance of Environmental Issues to EAC Integration:

There are several reasons why the good intentions expressed in the treaty and various protocols in the East african Community to not yield as much results as anticipated. To start with, the procedure of getting common understanding by the partner states is a lengthy and often difficult process is steeped in bureaucracy. The fact that there is the recognition of the relevance of environmental issues is a positive indicator to the consensus on the need to develop a common front to address these issues. Economic development does not happen in a vacuum but is only achieved through the exploitation of resources. This, contrasted to the global demand for a shift in the approach to development to incorporate a sustainability angle means that regional priorities have to be aligned to global trends while taking into account the development needs of the citizens of this region.

3.4: Addressing the Challenges–Sensitivity of Various Policies to the Environment

There seems to be a big disparity among the Partner States' legislation, first, on the establishment of the institutions charged with environmental functions. In some countries like Kenya and Tanzania, established under each country's national environmental legislation is fairly long compared to the other States. And, secondly, the distribution of functions among the various organs or institutions also varies from one Partner State to the other Creation of many institutions/organs may further create problems of coordination and or duplication of functions amongst themselves. Unless these problems are properly addressed they may lead to inertia in the whole process of enforcement and administration of the law and the standards generally.

The five Partner States are at different levels in terms of the development of environmental regulations, standards and guidelines for the environment generally and the road sector in particular. In some countries the level is at an infant stage while in others it is at a fairly mature stage.¹⁵⁵ Notwithstanding this disparity, the emphasis should be on formulating standards and guidelines which speak to each other across the region with a hind sight of the Partner States' commitment under the EAC Protocol.

As for the areas of divergences it is the general recommendation of this review that Partner States should revisit and revise their national policies and legislation including the regulations so that they are in harmony with the object of further achieving their commitment under the EAC Protocol. The harmonization of the policies and laws should go hand in hand with the harmonization of the environmental standards and guidelines recommended.

3.5: Environmental Security Assessment in EAC

There is a close link between environmental management and peace and security in any one region. The relationship is such that the two influence one another. Environmental degradation results in situation of conflict and even war as the competition for the limited environmental resources increases with increasing degradation¹⁵⁶. According to the Commission on Human Security (2003) in its report "Human Security Now", competition over land and resources,

¹⁵⁵, Ramdoo, I. Mackie, J, et al, (2010). Joining up Africa: Support to Regional Integration op cit.

¹⁵⁶ Conca, K., 2002. The Case for Environmental Peacemaking. In Environmental Peacemaking (eds. Conca, K. and Dabelko, G.D.), pp 1-22. Woodrow Wilson Centre Press, Washington, D.C.

sudden and deep political or economic transitions is one of the principle causes of internal conflict which usually affects more people across national boundaries in a manner that points to conflict over resources.¹⁵⁷

Indeed environmental resources have been acknowledged as a factor in influencing or prolonging some conflicts in all over the world and even here in East Africa. At the same time, war, and post-conflict situations, place stress on the environment, sometimes contributing to the overexploitation of natural resources. Armed conflict has – along with large populations of displaced people and refugees and the HIV/AIDS pandemic – been identified as a major factor in slowing down the achievement of the Millennium Development Goals (MDGs)¹⁵⁸ source?. The resources spent on warfare could, if redirected, make a significant contribution to addressing the MDGs and other development targets. Often, food production is drastically affected by armed conflict. Areas affected by conflict suffer annual losses of production,

3.6: Geostrategic Importance of Environmental Security in EAC

Joint exercises by the Defence Forces of the EAC Partner States are held in the context of the East African Community Memorandum of Understanding on Cooperation in Defence Matters. Under the Memorandum of Understanding, the EAC Partner States pursue an elaborate programme of activities, largely of confidence building among the Defence Forces.

It is pleasing to observe that the implementation of this Memorandum of Understanding has been one of the most successful and exemplary programmes in the EAC integration process. Since 2005, the EAC has held a series of joint military exercises on peace support operations, counter terrorism; and disaster management, with the most recent one being Exercise Natural Fire 11 held in Zanzibar in September.

3.7: Eco-Economic Convergence: Building a sustainable EAC

The realization of a large regional economic bloc bears great strategic and geopolitical significance, imposing on the EAC Partner States enormous responsibility for regional defence and security. To this extent, the EAC Partner States pursue a Memorandum of Understanding for Co-operation in Defence Matters within an elaborate programme of activities, largely of

¹⁵⁷ Commission on Human Security (2003).

¹⁵⁸ UNDP, The Eight Millenium Development Goals, http://www.undp.org/content/undp/en/home/mdgoverview.html

confidence building among the defence forces. These activities include military training, joint operations, technical assistance, visits, information exchange, sports and cultural activities and regular meetings of defence chiefs and other cadre of the defence forces.

However, it is important to note that the EAC Treaty takes a holistic approach in the quest of regional peace and security, having regard to the imperative to address the root causes of conflicts. Rivalry for resources and struggle for power are often the causes of conflicts. Therefore, through its broad range of areas of cooperation such infrastructure, energy, air safety, and anti-terrorism efforts among other areas, the EAC has entrenched systems of good governance in guaranteeing equal opportunities and equal participation of all sections of the population in the allocation and management of political and economic resources. Effective mechanisms are brought to bear on the redistribution of resources, both among and within the Partner States, in a manner that would reduce tensions and eliminate conflicts.

Like most parts of Africa and the developing world, the EAC region experiences severe effects of the imbalances in the global trading and economic system. EACs main challenge is therefore to work towards the improvement of the terms of trade and to boost the regions productivity through promotion of investments, industries and trade.

The region has rich and varied natural resource base of vast fertile lands, mineral, water, energy, forestry and wildlife resources offering great scope for agricultural, industrial, tourism and trade development and expansion. The EAC countries uphold good governance, free market economy and rule of law as the prerequisites for regional development and global partnership.

Coupled with the need for suitable policies is the challenge to provide reliable and adequate economic infrastructure, which link production to markets, both the regional and the external markets. The ongoing regional infrastructure projects in roads, railways, energy and communications are intended to attract and retain serious investment and providing least cost of doing business in the region. Human resource and science and technology development is considered key to regional integration and development; and it is with this in mind that the EAC has established the East African Science and Technology Commission among other new Commissions targeting key sectors.

The Customs Union in place and the progress towards the establishment of the Common Market, many aspects of which are in fact already being implemented, EAC has established a conducive environment for increased intra-EAC trade and investments in the region. Indeed, the EAC already has on stream a substantial complement of measures, projects and programmes, including the EAC private Sector Development Strategy (July 2006), EAC Model Investment Code (2002), EAC Joint Export and Investment Promotion Strategy(2011); and the EAC Competition Law and Policy (2006) – all which, with diligent application by the relevant authorities as well as the entrepreneurs, should vastly ease trade and investments flow within the East African region.

East Africa is thus positioned as a competitive and attractive, new investment and market area with vast investment opportunities in the agro-processing, mining, tourism and fishing industries, manufacturing and services as well as investments in regional infrastructure, including roads, railways, telecommunications, energy and the Lake Victoria Development Programme.

3.8 EAC-Policies on environmental management

In recognition of this fact, the Treaty for the Establishment of the East African Community calls for the Partner States to cooperate in all issues of the environment and natural resources management. The Treaty urges the Partner States to cooperate to preserve, protect and enhance the quality of the environment and to ensure sustainable utilization of shared natural resources. Moreover, the Treaty requires the Partner States to undertake to conclude such Protocols as may be necessary in each area of cooperation which shall spell out the objectives, scope of, and institutional mechanisms for co-operation and integration. Pursuant to this requirement the Partner States in 2006 concluded the Protocol on Environment and Natural Resources Management.

In terms of scope, the Protocol applies to all activities, matters and areas of management of the environment and natural resources of the Partner States. The Protocol enlists the activities, matters and areas to include; sustainable environment and natural resources management; management of trans-boundary resources; conservation of biological diversity; management of forest and free resources; wildlife resources; water resources; wetland resources, coastal and marine resources; fisheries resources; mineral resources; mountain ecosystems; soil and land use management; protection of the ozone layer; management of chemicals; management of wastes

and hazardous wastes; pollution control management; environmental impact assessment and environmental audit; environmental standards; and publication participation, access to information and justice. This list, however, is not exhaustive of what is contained in the Protocol.

The Protocol obligates the Partner States to manage the environment and natural resources in accordance with the environmental principles and natural resources management, such as, the principle of the fundamental right of the people to live in a clean and healthy environment; the principle of sustainable development; the principle of public participation in the development of policies, plans, processes and activities, the principle of notification in cases of activities with trans-boundary impacts; the principle of environmental impact assessment; the principle of environmental audit and monitoring; the polluter pays principle; the user pays principle; the precautionary principle and the principle of gender equality, just to mention some of them.

Through the Protocol, Partner States commit themselves to ensure sound management of the environment and natural resources by, among other things, observing international norms regarding sound environment and natural resources management and by seeking to harmonize the policies, laws and strategies in their national jurisdictions.

3.9 Policy Frameworks in Environmental Management

3.9.1 Sustainable Development

There is no regional body spearheading the sustainable development as such but Sustainable Development issues are addressed within the Framework of policies, programmes, projects plans and activities. In that regards, EAC has developed the following policies which recognizes the negative impacts of development on environment (environmental degradation, change and depletion of natural resources). These policies acknowledge that a clean, healthy and safe environment is a prerequisite for Sustainable Development and their calls for cooperation in development, harmonization and adoption of common environmental management policies and strategies have been increasing.

There are calls to the Partner States to, among others the strengthening and consolidation of cooperation in agreed fields that would lead to equitable economic development within the Partner States and which would in turn, raise the standard of living and improve the quality of life of their populations; the promotion of sustainable utilisation of the natural resources of the Partner States and the taking of measures that would effectively protect the natural environment of the Partner States; (d) the strengthening and consolidation of the long standing political, economic, social, cultural and traditional ties and associations between the people of PS so as to promote mutual development of these ties and associations; the mainstreaming of gender in all its endeavours and the enhancement of the role of women in cultural, social, political, economic and technological development.

3.9.2 Common Markets

The Protocol on the Establishment of the East African Community (EAC) Common Market entered into force on 1 July 2010, following ratification by all the five Partner States: Burundi, Kenya, Rwanda, Tanzania and Uganda. The Protocol was signed by the Heads of States on 20 November 2009, coinciding with the 10th Anniversary celebrations of the revived Community.

The establishment of the East African Community Common Market is in line with the provisions of the EAC Treaty. It provides for "Four Freedoms", namely the free movement of goods; labour; services; and capital, which will significantly boost trade and investments and make the region more productive and prosperous.

The Common Market represents the second stage of the regional integration process (as defined by the Treaty for the Establishment of the East African Community), following the Customs Union, which became fully-fledged in January 2010. The Common Market Protocol is a significant step towards the achievement of the next milestones in the integration process namely the Monetary Union and the EAC Political Federation.

A Common Market is however not a new phenomenon for East Africa. The East African region operated one under the former East African Community (1967-1977) which was very successful and only collapsed with the old EAC.

The establishment of the Common Market shall be progressive in accordance with the relevant laws of the Community and those of the Partner States.

3.9.3 Challenges on Implementation of policies

Implementation of policies and strategies has faced some challenges: First of all there is the link between the coordination and monitoring roles of the Directorate of Customs vs. enforcement by the national authorities are not clear. This in essence ensures that there is no common approach on handling this all important issue. Secondly, there is conflict of interests at national and regional levels (promotion of trade and investment vs. revenue maximization) which also leads to the creation of different levels of responses which beats the essence of even having integrative policies in the first place.; Appeals system not yet working properly in spite of existence of appropriate provisions under the existing laws; No instrument to guide the discretionary powers of the Commissioners of Customs in the Partner States.

3.10 Conclusion

This chapter has examined the situational context of environmental management in the East African Community. A historical background of the community has been provided to elucidate the growth of economic integration while at the same time tracing the growth of environmental management in the region. The chapter has argued that just as the economic integration effort has had its challenges, there have also been challenges regarding the conception of environmental management especially in the context of sustainable development. This case study of environmental integration in the region have yet to gather steam because of legislative, institutional and political bottlenecks that have meant that various deadlines on the implementation of agreements has not been realized. This study serves to lay the foundation for a critical analysis of environmental management with a view of achieving the study's objectives which are to evaluate environmental management challenges facing East African region and to analyze the principles, norms, rules and decision making procedures within the East African Community that affect Environmental Management Practices as well as to evaluate the efficiency and effectiveness of legal and policy frameworks and how they affect environmental management within the EAC region

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CHAPTER FOUR: EAC ORGANS, INSTITUTIONS AND POLICIES THAT SHAPE ENVIRONMENTAL MANAGEMENT PRACTICES

4.1 Introduction

This chapter presents data analysis, interpretation and discussion of the findings. The aim of this study was to establish the effects of the EAC integration on the management of the environment. The study also sought to explore the environmental challenges facing East African region, to analyze the principles, norms, rules and decision making procedures within the East African Community that affect Environmental Management Practices, to evaluate the efficiency and effectiveness of policy measures and how they affect environmental management within the EAC region and to recommend measures to improve environmental management practices within the region

4.2 Types of Organizations involved

The respondents were requested to indicate the type of organisations they were working in. The results are shown in figure 4.1 below.

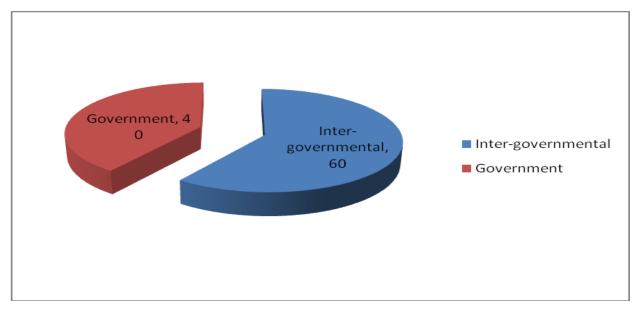


Figure 4. 1: Type of Organisation

According to the findings, 60% of the respondents indicated that they were working in intergovernmental organisations. While 40% indicated that they were working in governmental organisations. This clearly shows that that most of the respondents were working with inter-

governmental organisations. In addition the respondents indicated that they were working in the ministry of water and irrigation and Lake Victoria Basin Commission

4.3 Environmental Challenges

The respondents were also requested to indicate the level of environmental challenges in EAC. The results are shown in figure 4.2.

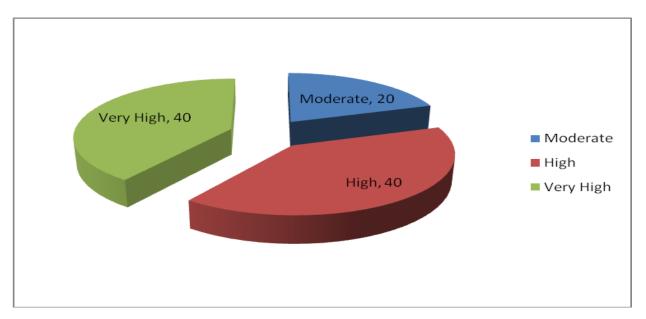


Figure 4. 2: Level of environmental challenges in EAC

From the findings, 40% of the respondents indicated that the level of environmental challenges in EAC was very high. In addition, 40% of the respondents indicated that the level of environmental challenges in EAC was high and 20% of the respondents indicated that the level of environmental challenges in EAC was moderate. From these findings we can deduce that the level of environmental challenges in EAC was high.

4.3.1 Severity of threat/challenges to EAC

The respondents were further requested to rank the stated environmental challenges in order of severity of threat to EAC. The results are presented in table 4.1 below.

Challenge/Threat			
C	Mean	Std. Deviation	
Climate Change	3.8000	.83666	
Food Insecurity	3.8000	.44721	
Floods	3.8000	.83666	
Drought	4.2000	.83666	
Declining water Quantity	4.2000	.83666	
Declining Water Quality	4.4000	.54772	
Loss of Bio-Diversity	4.4000	.54772	
Waste management	4.0000	.70711	

Table 4.1: Severity of threat to EAC

A five point Likert scale was used to interpret the respondent's responses. According to the scale, those threats which were not considered at all were awarded 1 while those which were considered to have a very high severity were awarded 5. Within the continuum are 2 for low, 3 for moderate and 4 for high. Mean (weighted average) and standard deviation were used to analyze the data. According to the researcher those threats with a mean close to 4.0 were considered to have a high severity while those with a mean close to 2.0 were considered to have a low severity to EAC. On the same note the higher the standard deviation the higher the level of dispersion among the respondents.

From the findings, the respondents indicated that declining water quality had a high level of severity on EAC (M=4.4000, SD=0.54772). The respondent also indicated that that loss of biodiversity had a high severity on EAC (M=4.4000, SD=0.54772). In addition, the respondents indicated that drought had a high level of severity on EAC (M=4.2000, SD=0.83666). Further the respondents indicated that declining water quantity had a high level of severity of EAC (M=4.2000, SD=0.83666). in addition, the respondents indicated that waste management had a high level of severity on EAC (M=4.0000, SD=0.70711). The respondents also indicated that climate change had a high level of severity on EAC (M=3.8000, SD=0.83666). The respondents further indicated that food insecurity had a high level of severity on EAC (M=3.8000, SD=0.83666). SD=0.44721). Lastly, the respondents indicated that floods had a high level of severity on EAC (M=3.8000, SD=0.44721). (M=3.8000, SD=0.83666). From these findings, we can deduce that declining water quality had the highest level of severity followed by loss of bio-diversity, drought, declining water quantity, waste management, climate change, food insecurity and floods.

4.4 EAC policies to respond to Environmental Challenges in the Region

The respondents were requested to indicate how adequate the EACs policies in responding to the various environmental Challenges in the region were. The results are shown in figure 4.3 below.

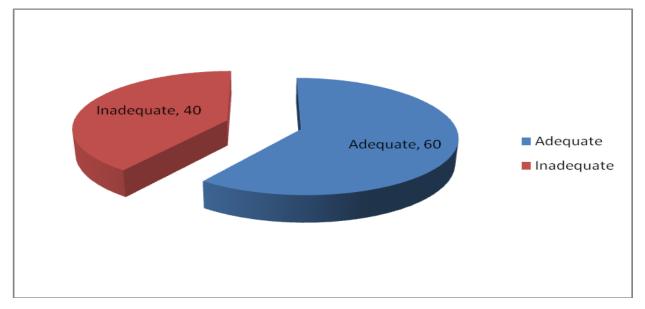


Figure 4. 3: EAC policies and Environmental Challenges in the Region

From the findings, 60% of the respondents indicated that the EACs policies were adequate in responding to the various environmental challenges in the region while 40% indicated that EACs policies were inadequate in responding to the various environmental challenges in the region. From these findings, we can deduce that EACs policies were adequate in responding to the various environmental challenges in the region.

4.4.1 Weaknesses making policies effective

The respondents were also requested to indicate the main cause of weaknesses (if any) in making these policies effective were related to implementation. The results are shown in table 4.2 below.

	Frequency	Percent
Weaknesses in the policies	1	20.0
Weaknesses in the implementation	4	80.0
Total	5	100.0

Table 4. 2: Main cause of weaknesses in making these policies effective

According to the findings,

- 80% of the respondents indicated that the main cause of weaknesses in making these policies effective were related to implementation while
- 20% indicated that the main cause of weaknesses in making these policies effective were • related to policies. From these findings we can deduce that the main cause of weaknesses in making these policies effective was related to implementation followed by policies. Other respondents indicated that there are no sanctions to any Partner State which will not implement these policies being produced by the EAC organs and hence both issues apply. The respondents further indicated that there was poor communication and dissemination strategy. Once policies are made at the top level, only a handful of citizens get to know about them. The little efforts made by the ministries are inadequate and thus the need for more stakeholders to be involved in reaching the local communities and key stakeholders. Further, the respondents indicated that there was lack of willingness of the Partner States to implement the agreed policies. The respondents further indicated that there was lack of harmonization of regional policies with national policies. Under LVEMPI Fish Levy Trust Fund was formulated in 2011, the Partner States were expected to come up with national laws to so as to operationalise the trust fund. To date this has not been done but Kenya has a draft bill which is awaiting debate in parliament. The respondents also indicated that most of Regional policies don't have Legislations; hence their implementations depend on willingness of Partner States and National policies and legislations. In addition, the respondents indicated that enforcement of polices is not effective; as the EAC has only role of coordinating the regional implementation; while monitoring and enforcement is at the hand of the Partner States.

Further, the respondents indicated that there was lack of political will to implement the policies and enforce laws.

4.4.2 Implementation of Policies to Manage Environment

According to the EAC Treaty, all decisions are by consensus. The respondents were requested to indicate how suitable the methods in implementing effective policies to manage the environment in the EAC Region were. The results are shown in figure 4.4 below.

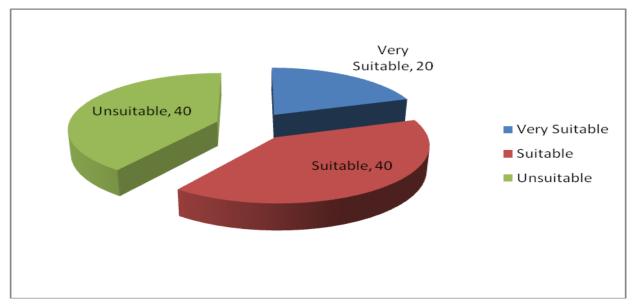


Figure 4. 4: Implementation of policies to manage environment

From the findings,

- 40% of the respondents indicated that the methods used in implementing effective policies to manage the environment in the EAC Region were suitable; the same percentage indicated that they were unsuitable and
- 20% indicated that they were very suitable. From these findings we can deduce that the methods used in implementing effective policies to manage the environment in the EAC Region were unsuitable.
- The respondents further indicated that while the principle is aimed ensuring that the Partner States moves in harmony towards regional integration, the same is hampered by the slow process of getting consensus. There should be flexibility of moving forward for

the countries which have agreed. A good example is the Water release and Abstraction policy of 2008¹⁵⁹ which all agree on principle that it is good yet one Partner States keeps dragging the finalization of the process by bringing in new conditions. This has lead to fatigue even to the donors. The respondents also indicated that voting tends to separate countries but arguing your point and selling it in plenary ensures that Member States are not put in a corner of antagonism. The Partner State which could not sale its argument loses fairly in such fora. In addition, the respondents indicated that the decisions by consensus build sense of mutual cooperation and trust. It allows all countries to be free to accept or to reject the decision. However, when it comes to decision making on critical issues; using this consensus method takes time to agree on issues particularly if one country doesn't agree. If not then either no decision is made; or it is referred to the Head of States for final decision.

4.4.3 EAC in formulation implementation of Environmental policies

The main role of the EAC (and LVBC) secretariat is coordination. The respondents were hence requested to indicate how effective the Secretariat was in formulation implementation of Environmental policies is.

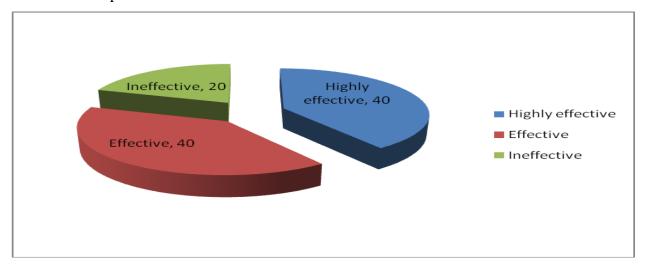


Figure 4. 5: Formulation implementation of Environmental policies

¹⁵⁹ EAC(November 10 2008), PRESS RELEASE: EAC Countries to enter new covenant to control Lake Victoria waters use and agreed lake levels, accessed at, http://www.eac.int/index.php?option=com_content&view=article&id=206:eac-countries-to-enter-new-covenant&catid=146:press-releases&Itemid=194

From the findings, 40% of the respondents indicated that the EAC ssecretariat was effective in formulation implementation of environmental policies; the same percentage indicated that it was highly effective and 20% indicated that they were ineffective. From these findings we can deduce that the EAC ssecretariat was effective in formulation implementation of environmental Policies

4.4.4 Effectiveness in the implementation of policies

The respondents were further requested to indicate how effective the Secretariat was in the implementation of policies. The results are shown in table 4.3 below.

	Frequency	Percent
Effective	1	20.0
Moderately effective	3	60.0
not effective	1	20.0
Total	5	100.0

 Table 4. 3: Effectiveness in the implementation of policies

From the findings, 60% of the respondents indicated that the EAC Secretariat was moderately effective in the implementation of policies, 20% indicated that it was effective and the same percentage indicated that it was not effective. From these findings we can deduce that the EAC Secretariat was moderately effective in the implementation of policies.

4.4.5 Challenges Facing EAC Secretariat

The respondents were requested to indicate the main challenges of the EAC Secretariat in coordinating the formulation and implementation of policies to manage the environment. From the findings, the respondents indicated that the biggest challenge is on funding to facilitate the process. The respondents also indicated that EAC Secretariat was facing challenges in capacity in terms of personnel and equipment, and financial constraints. The respondents also indicated that LVBC Secretariat does not implement policies but it is involved in coordinating harmonization of national laws to reflect regional perspective. This is one of the key strategic areas identified in the two strategic plans (past and current). The respondents also indicated that

they were facing challenges getting Partner States to agree and having a common position; lack of sufficient funds to undertake coordination and implementation. The respondents also indicated that the formulation process is so lengthy given that it involves a lot of consultation.

4.4.6 Ways of Overcoming the Challenges

The respondents were also requested to propose ways of overcoming challenges. According to the findings, the respondents indicated that member countries should build capacity and provide financial support. The respondents also indicated that EAC Secretariat should source for more funds and even through enhanced contributions by countries or having a Trust Fund for sustainable Environmental interventions. The respondents further indicated that the best way is to establish sustainable funding mechanism like Environmental Trust Funds accrued from the management and services provided by environment and natural resources; and involve Private sectors and development Partners to support the coordination. Further, respondents indicated that the Secretariat should have a mechanism for policy monitoring and evaluation to provide feedback for purposes of improving the policy.

4.4.7 Effectiveness of the Projects in Achieving Objectives

The EAC through Lake Victoria Basin Commission (LVBC) has a number of environmental projects and programs aimed at ensuring sustainable development of the lake basin. For example the Commission initiated such a programme for the improvement of infrastructure in the basin whose completion date was June 2013.¹⁶⁰. The respondents were requested to indicate how effective the projects had been in achieving this objective. From the findings, the respondents indicated that the projects have been effective but the challenges are enormous. The Stakeholder expectations are so high and it will take a longer period to be fulfilled. The respondents further indicated that the projects had been very effective in that projects raise awareness about issues at hand and increases collaborative management of trans-boundary natural resources. The respondents also indicated that these projects help to bring together EAC Partner States to address transboundary issues that affect sustainable development. By Sustainable development (SD) I mean to address three pillars of SD. LVBC has projects addressing environment, Social and Economic development. Through the implementation of these projects Partner States get opportunity to learn and share best practices; and hence use data and information collected to

¹⁶⁰ The Lake Victoria Environmental Management Project (LVEMP II).

inform decisions and hence increase the ability of environment and natural resources services and benefits that support livelihood of EAC people. These projects have helped LVBC to come up with common practices and legal frameworks that govern the management of environment and natural resources. These include Regional Strategy to address sustainable land management; regional Strategy to address water hyacinth, climate change adaptation and mitigation; tourism, Forest and water resources management, among others.

4.4.7 Approaches to Improve Environmental Management Practices

The respondents were further requested to propose any changes in approach which could improve the environmental management practices in the basin. According to the findings, the respondents indicated that bilateral cooperative frameworks should be established through MoUs, and let there be a desk officer for these sub basins of the Lake Victoria Basin. The respondents also indicated that there is need to involve more stakeholders. For instance the Sectoral Committee which are the technical in nature should be expanded to other institutions as envisaged by Article 37 (3) which states Senior Officials of Partners States, Heads of Public Institutions, representatives of Regional Institutions, representatives from sectors covered under Article 3 of this Protocol, business and industry and Civil Society. As it is now, it only involves senior officials from Partner States such an expanded committee which ensure participation of all key stakeholders in decision making as well as implementation of the same.

Further, the respondents indicated that EAC needs to use ecosystem approach to manage all trans-boundary natural resources. The EAC and LVBC Secretariat as coordinators of the environment and natural resources management are not enough. EAC/LVBC Secretariats should act as employees of EAC Partner States and hence require not only to be given responsibilities but also authority to manage these trans-boundary resources for the benefits of all EAC Partner States. Secretariats should also act as managers of these trans-boundary resources by ensuring the regional frameworks are implemented by all countries, funds and technical supports are available at any time required and used effectively to deliver the intended services and benefits for all EAC Partner States; and accountable to the EAC Partner States. In addition, EAC and LVBC Secretariats should be accountable to all decisions made by Council of Ministers and Summit; and produce results, outcome and impacts that can be measured and monitored and reported to all EAC people.

4.4.8 Success in Managing the Environment

The respondents were further requested to rate the various efforts such as the inception of protocols and the establishment of an enabling infrastructure and high-level sensitization which is aimed at influencing the decision-makers to beware of environmental management. According to the findings, the respondents indicated that various efforts put in place by EAC in managing the environment were excellent. Other respondents indicated that various efforts put in place by EAC in managing the environment were not effective. They also indicated that there is room for improvement. A fully fledged department headed by a vibrant officer is required. Recruitment process is wanting where competency has been sacrificed for equality. The respondents also indicated that these efforts for this point in time are basics and adequate to manage transboundary environments and natural resources; if enforcement mechanism will be established and EAC/ LVBC Secretariats will be given authorities to manage these resources for the benefits of EAC Partner States.

4.5 Conclusion

This chapter has examined the operationalisation of various agreements in the region aimed at achieving sound environmental systems for sustainable development. It has built on the basis laid in chapter three which had traced the evolution of environmental integration in East Africa. This chapter analyses the success of the environmental management efforts. It has established that the region has had some success in achieving environmental management with the success however been hampered by poor coordinative mechanisms among the different countries. The study has also established that whereas the EAC secretariat has had some success in implementing environmental policies, it is yet to achieve the efficiency required to successfully handle these challenges. The weakness is also caused by poor legislative efforts and divergent views on what should be the common stand on environmental management. There is however some success in environmental management but there is need for concerted efforts to handle this growing concern.

CHAPTER FIVE: SUMMARY CONCLUSIONS AND RECOMMENDATIONS FOR SUSTAINABLE DEVELOPMENT IN EAC

5.1 Introduction

This chapter presents the summary of the findings on the environmental challenges facing East African region, to analyze the principles, norms, rules and decision making procedures within the East African Community that affect Environmental Management Practices, to evaluate the efficiency and effectiveness of policy measures and how they affect environmental management within the EAC region and to recommend measures to improve environmental management practices within the region. The chapter also presents the conclusion and recommendations drawn from the findings.

5.2 Summary of the Findings

5.2.1 Environmental challenges facing East African region

This study sought to establish the environmental challenges facing EAC. The study established that declining water quality was the most severe challenge/threat followed by loss of biodiversity, drought, declining water quantity, waste management, climate change, food insecurity and floods. These reinforces other challenges such as conflicting interest at national and regional levels and lack of guide on discretionary powers of the commissioners of customs in the partner states.

5.2.2 EAC Policies that affect Environmental Management Practices

The study also sought to analyze the principles, norms, rules and decision making procedures within the East African Community that affect Environmental Management Practices. The study established that there were weaknesses in the implementation of policies that affect environmental management practices. The main cause of weaknesses in making these policies effective was related to implementation followed by policies. The study established that there was poor communication and dissemination strategy. Further, the study established that there was lack of willingness of the Partner States to implement the agreed policies. In addition, member states were not following the Transport Act and its legislations that became effective July 1st 2011 (LVBC carried out sensitization meetings in the Partner States but looks like

countries did not take it further than that). In addition, there was lack of harmonization of regional policies with national policies. Under LVEMPI Fish Levy Trust Fund was formulated and the Partner States were expected to come up with national laws to so as to operationalise the trust fund. To date this has not been done but at least Kenya has a draft bill. Most of Regional policies don't have Legislations; hence their implementations depend on willingness of Partner States and National policies and legislations.

The study also established that the methods used in implementing effective policies to manage the environment in the EAC Region were unsuitable. While the principle is aimed ensuring that the Partner States moves in harmony towards regional integration, the same is hampered by the slow process of getting consensus. There should be flexibility of moving forward for the countries which have agreed. A good example is the Water release and Abstraction policy which all agree on principle that it is good yet one Partner States keeps dragging the finalization of the process by bringing in new conditions. This has lead to fatigue even to the donors. The also established that voting tends to separate countries but arguing your point and selling it in plenary ensures that Member States are not put in a corner of antagonism. The Partner State which could not sale its argument loses fairly in such fora. In addition, the decisions by consensus build sense of mutual cooperation and trust. It allows all countries to be free to accept or to reject the decision. However, when it comes to decision making on critical issues; using this consensus method takes time to agree on issues particularly if one country does not agree.

5.2.3 Efficiency and Effectiveness of Policy Measures

The study also sought to evaluate the efficiency and effectiveness of policy measures and how they affect environmental management within the EAC region. This study established that EAC Secretariat was moderately effective in the implementation of policies. The biggest challenge in implementing policies is on funding to facilitate the process. Secretariat was facing challenges in capacity in terms of personnel and equipment, and financial constraints. In addition, LVBC Secretariat does not implement policies but it is involved in coordinating harmonization of national laws to reflect regional perspective. This is one of the key strategic areas identified in the two strategic plans (past and current). Further, the formulation process is so lengthy given that it involves a lot of consultation.

This study revealed that member countries should build capacity and provide financial support. In addition, EAC Secretariat should source for more funds and even through enhanced contributions by countries or having a Trust Fund for sustainable Environmental interventions. The study also found that the best way is to establish sustainable funding mechanism like Environmental Trust Funds accrued from the management and services provided by environment and natural resources; and involve Private sectors and development Partners to support the coordination. Further, the Secretariat should have a mechanism for policy monitoring and evaluation to provide feedback for purposes of improving the policy.

The EAC through Lake Victoria Basin Commission (LVBC) has a number of environmental projects and programs aimed at ensuring sustainable development of the lake basin. The study established that projects help to bring together EAC Partner States to address trans-boundary issues that affect sustainable development. By Sustainable development (SD) I mean to address three pillars of SD. LVBC has projects addressing environment, Social and Economic development. Through the implementation of these projects Partner States get opportunity to learn and share best practices; and hence use data and information collected to inform decisions and hence increase the ability of environment and natural resources services and benefits that support livelihood of EAC people.

5.2.4 Recommendations on environmental management practices within the region

This study established that bilateral cooperative frameworks should be established through MoUs, and let there be a desk officer for these sub basins of the Lake Victoria Basin. The respondents also indicated that there is need to involve more stakeholders. Further, the study established that EAC needs to use ecosystem approach to manage all trans-boundary natural resources. The EAC and LVBC Secretariat as coordinators of the environment and natural resources management are not enough. EAC/LVBC Secretariats should act as employees of EAC Partner States and hence require not only to be given responsibilities but also authority to manage these trans-boundary resources for the benefits of all EAC Partner States. Secretariats should also act as managers of these trans-boundary resources by ensuring the regional frameworks are implemented by all countries, funds and technical supports are available at any time required and used effectively to deliver the intended services and benefits for all EAC

Partner States; and accountable to the EAC Partner States. In addition, EAC and LVBC Secretariats should be accountable to all decisions made by Council of Ministers and Summit; and produce results, outcome and impacts that can be measured and monitored and reported to all EAC people.

5.3 Conclusion

The efforts to deal with environmental challenges facing EAC have been frustrated by a number of factors. From the findings, declining water quality was the most severe challenge/threat followed by loss of bio-diversity, drought, declining water quantity, waste management, climate change, food insecurity and floods.

The study also concludes that there were weaknesses in the implementation of policies that affect environmental management practices. The main cause of weaknesses in making these policies effective was related to implementation followed by policies. There was poor communication and dissemination strategy. Further, lack of willingness of the Partner States to implement the agreed policies and there was lack of harmonization of regional policies with national policies. Under LVEMPI Fish Levy Trust Fund was formulated and the Partner States were expected to come up with national laws to so as to operationalise the trust fund.

The study further concludes that EAC Secretariat was moderately effective in the implementation of policies. The biggest challenge in implementing policies is on funding to facilitate the process. Secretariat was facing challenges in capacity in terms of personnel and equipment, and financial constraints. In addition, LVBC Secretariat does not implement policies but it is involved in coordinating harmonization of national laws to reflect regional perspective. This is one of the key strategic areas identified in the two strategic plans (past and current). Further, the formulation process is so lengthy given that it involves a lot of consultation.

5.4 Recommendations

To improve the environmental management practices in the basin, bilateral cooperative frameworks should be established through MoUs, and let there be a desk officer for these sub basins of the Lake Victoria Basin. The respondents also indicated that there is need to involve more stakeholders. For instance the Sectoral Committee which are the technical in nature should

be expanded to other institutions as envisaged by Article 37 (3) which states Senior Officials of Partners States, Heads of Public Institutions, representatives of Regional Institutions, representatives from sectors covered under Article 3 of this Protocol, business and industry and Civil Society. As it is now, it only involves senior officials from Partner States such an expanded committee which ensure participation of all key stakeholders in decision making as well as implementation of the same.

In addition, EAC needs to use ecosystem approach to manage all trans-boundary natural resources. The EAC and LVBC Secretariat as coordinators of the environment and natural resources management are not enough. EAC/LVBC Secretariats should act as employees of EAC Partner States and hence require not only to be given responsibilities but also authority to manage these trans-boundary resources for the benefits of all EAC Partner States. Secretariats should also act as managers of these trans-boundary resources by ensuring the regional frameworks are implemented by all countries, funds and technical supports are available at any time required and used effectively to deliver the intended services and benefits for all EAC Partner States; and accountable to the EAC Partner States.

Further, EAC and LVBC Secretariats should be accountable to all decisions made by Council of Ministers and Summit; and produce results, outcome and impacts that can be measured and monitored and reported to all EAC people.

The study has established that environmental conservation efforts are being frustrated by some setbacks such as conflicting interest at national and regional level, inappropriate appeal system and lack of proper guidance on the discretionary powers of the commissioners of customs in the partner states. This study therefore recommends that the challenges be reviewed again and proper framework be put up to deal with such challenges.

The decision making process is overseen by the summit which meets once in a year. The decision making process is through a consensus. Although this process is seen as democratic. The process lacks representativeness of the people. This is because the process lacks any formality which makes it prone to human weakness.

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REFERENCES.

Adger, Neil, (et al.) (2005). Successful Adaptation to Climate Change across Scales, *Global Environmental Change*, 15: 77-86.

Advocates Coalition for Development and Environment (ACODE) www.acode-u.org.

Allen P., Ed., (1993). *Food for the, Future: conditions and Contradictions of sustainability*, London & New York, John Wiley.

Altmann, Jorn (2002). Integration of Environmental Aspects in Regional and Inter-Trade Agreements.

Baylis J., et al, (2008), *The Globalization of World Politics: An Introduction to International Relations*, (4th Edition), Oxford, Oxford University Press, P. 131 – 133.

Beck, U., (1992). Risk Society: Toward a New Modernity, London, Sage.

Bertalanffy, L. Von G., (1968). *Systems Theory: Foundations, Development, Applications;* New York, George Brazillier, Inc.

Bowonder, B., (1986). Environmental Management Problems in India, in, *Environmental Management*, 10(5): 599-609.

Bromley, D. W., (1989). Institutional Change and Economic Efficiency, *Journal of Economic Issues*, 23 (3): 735-759.

Brunner, R., & Steelman T., (2005). Beyond Scientific Management in Adaptive Governance, *Integrating Science Policy and Decision Making*. Brunner R., & Steelman, T., (Eds) New York, Columbia Press.

Buzan, B., & Hansen L., (2009), *The Evolution of International Studies*, Cambridge, Cambridge University Press, p. 203.

Campbell, John L. and Ove K. Pedersen, eds. (2001). *The Rise of Neoliberalism and Institutional Analysis*, Princeton, New Jersey: Princeton University Press.

Claire, I., & Godber, T., (2004) *The Evolving Roles of Environmental Management Institutions in East Africa: From Conservation to Poverty Reduction*, Kampala, IDL group.

Clark, C., (1990).Mathematical Bioeconomics, *The Optimal Management of Renewable Resources*, (2nd Ed).New York, John Wiley.

Cohen, M.J., (1998) Science and the Environment: Assessing Cultural Capacity for Ecological Modernization, in, *Public Understanding of Science* 7(2): 149-167.

Cohen, M. J. (1997). Risk Society and Ecological Modernization: Alternative Visions for Post-Industrial Nations, in, *Futures*, 29(2): 105-119.

Cohen, M. J. (1998). Sustainable Development and Ecological Modernization: National Capacity for Rigorous Environmental Reform, in, Requir-Desjardins, D., Splash C., & van der Straaten J.,(Eds). *Environmental Politics and Societal Aims*. Dordrecht, Kluwer Press.

Cohen, S., (2006). Understanding Environmental Policy. New York: Columbia University Press.
Das, A., (2009). Does Firm Ownership Differentiate Environmental Compliance? Evidence
from Indian Chromite Mining Industry, in, Munich Personal RePEc Archive 18716 (18):1-26.
EAC (2009). Protocol on the Establishment of the East African Community Common Market,

East African Community Secretariat, Arusha, Tanzania.

EAC, **2012.** East African Community Facts and Figures – EAC Secretariat, Arusha Tanzania East African Co-operation Development Strategy report (1997-2000).

Edelstein, M.R. (1988). Contaminated Communities: *The Social and Psychological Impacts of Residential Toxic Exposure. Boulder*, Westview Press.

Emerson, K., Orr, P., Keyes, D., and McKnight, K., (2009). Environmental conflict resolution: Evaluating performance outcomes and contributing factors, in, *Conflict Resolution Quarterly*, 27(1): 27-64.

Erikson, K. (1994). A New Species of Trouble: Explorations in Disasters, in, *Trauma, and Community*, New York: Norton.

Fiksel, J. (2006). Sustainability and resilience: Toward a systems approach, *in, Sustain Scientific Practical Policy*, 2 (Fall), 14–21.

Fiorino, Daniel J. (2009). Green Clubs: A New Tool for Government?: A Club Theory *Perspective*, 14(2) 209-229.

Goldstein, J. S. & Pevenhouse, J.C. (2011). *International relations*, Nicholasville USA, Pearson. Goodwin, M. F. (1998) Organization Contextualization as Institution-Building: An

Environmental Assessment of an In Service Theological Seminary in Kenya, East Africa.

Walden University.

Gouldson A; Lidskog R; Wester-Herber M (2007) The Battle For Hearts And Minds? Evolutions In Corporate Approaches To Environmental Risk Communication, *Environmental Planning*, 25, Pp.56-72. Gunningham, Neil and Darren Sinclair. (2005). Policy Instrument Choice and Diffuse Source Pollution. *Journal of Environmental Law* 17(1), 51–81.

Haas, E. B., (2004) The Uniting of Europe, Notre Dame: Notre Dame University Press.

Haas, E.B., (1958). The Uniting Europe, Stanford, Stanford University Press.

Hale, M. (1995) Training for environmental technologies and environmental management. *Journal of Cleaner Production*. 3(1–2): 19–23.

Hart, S.L. (1995) A Natural-Resource-Based View of the Firm. *Academy of Management Review*. 20(4): 986–1014.

Heikkila, Tanya, & Andrea K. Gerlak. (2005). The Formation of Large-Scale Collaborative Resource Management Institutions: Clarifying the Roles of Stakeholders, Science, and Institutions. *Policy Studies Journal* 33(4): 583-612.

Hyden, Goran (1983) No Shortcuts to Progress, University of California Press.

Jesse C. R., (2002), Democratic Decentralisation of Natural Resources: *Institutionalizing Popular Participation*. Washington, World Resources Institute.

Kegley, C., JR, (2007). *World Politics, Trends and Transformation*, eleventh edition, New York Prentice Hall: Englewood Cliffs.

Keohanne, R.O., (1984), *After Hegemony: Cooperation and Discord in the World Political Economy*, New York, Princeton University Press.

Kingsbury, B., (1998) Sovereignty and Equality, *European Journal of International Law*, 9, 599-625.

Kioko, E. (1998) Biodiversity of Wild Wilkmoths (*lepidoptera*) and their Potential for Silk Production in East Africa.Kenyatta University, Kenya.

Kirk, D. (1970) *Optimal Control Theory: An introduction*, New Jersey, Prentice Hall: Englewood Cliffs.

Kolosov, G. (1997). Size Control of a Population Described by a Stochastic Logistic Model:. *Automatic Remote Control* (Engl. Translation.) 58,678–686.

Krasner, Stephen (1983); International Regimes

Langenhove, V & Lombaerde, P. (2005) Indicators of Regional Integration, in, *Conceptual and Methodological Issues*. Dublin, Trinity College Dublin.

Lawyers Environmental Action Team (LEAT) Tanzania.

Louisa, E. (2001) Knowledge and Science Interactions in Marine Conservation Systems in East Africa: East Anglia University, UK.

Ludwig, D., Carpenter, S., & Brock, W., (2003). Optimal Phosphorous Loading for a Potentially Eutrophic Lake, *Ecological Applications*, 13, (1) 135–1152.

Ludwig, von Bertalanffy (1968), General System Theory, accessed at;

http://www.panarchy.org/vonbertalanffy/systems.1968.html on 26th October 2014 at 5.30 pm.

Maxon, R., (2009). *East Africa: An Introductory History*, (3rd and Revised Edition), Virginia, West Virginia Press.

May, Peter J. (2005). Compliance Motivations: Perspectives of Farmers, Homebuilders, and Marine Facilities, *Law and Policy*. 27 (2): 317-347.

Mbithi, L. M., & Caiphas C., (2014). Assessment of Services Sector in the East African Community (EAC) Partner State Countries,

McMichael, A., Butler, C., Folke, C., (2003) New visions for addressing sustainability, *Science*, 302, 1919–1920.

Meheta, P.S (2002). The Indian Mining Sector: Effects on the Environment & FDI inflows, *Conference on Foreign Direct Investment and the Environment*, Paris: France.

Nikolaou, I.E. and Evangelinos, K.I. (2010) A SWOT analysis of environmental management practices in Greek Mining and Mineral Industry. *Resources Policy*. 35: 226–234.

Okoth-Ogendo, H. W. O, and Tumushabe, G. W., Eds, (1999). *Governing the Environment: Political Change and Natural Resource Management in Eastern and Southern Africa*, Nairobi, Kenya, ACTS Press.

Pahl-Wost, C., (2006). The Implications of Complexity for Integrated Resource management, *Environmental Modeling and Software*, 22 561-569.

Park, P., Brydon-Miller, M., Hall, B., & Jackson, T., (Eds.). (1993). Voices of Change:Participatory Research in the United States and Canada, Westport, Canada, Bergin and Garvey.

Picou, J. S., & Rosebrook, D., (1993). Technological Accident, Community Class-Action Litigation, and Scientific Damage Assessment: A Case Study of Court-Ordered Research, *Sociological Spectrum* 13(1): 117-138.

Porter, M. & C. van der Linde, (1995). Green and Competitive: Ending the Stalemate, *Harvard Business Review* 73:120-134.

Potoski, Matthew & Aseem Prakash. (2002). Protecting the Environment: Voluntary Regulations in Environmental Governance, *Policy Currents*. 11 (4): 9-13.

Poverty Reduction Strategy Paper (PRSP) Progress Report, 2000/01.

Quazi, A.H. (1999). Implementation of an Environmental Management System: The Experience

of Companies Operating in Singapore, Industrial Management & Data Systems. 99(7): 302-311.

Ramdoo, I. Mackie, J, et al, (2010). Joining up Africa: Support to Regional Integration.

Richards, S.; Possingham, H.; Tizard, J., (1999) Optimal Fire Management for Maintaining

Community Diversity. Ecological Applications, 9, 880–892.

Rusuhuzwa, Thomas Kigabo,(2011), The Potential Implications of the Entry of the new Republic of South Sudan into the EAC.

Ruszkowski, H. J. 2006. Europes Challenges in a Globalised World. Global Jean Monnet Conference ECSA – World Conference

Schlosberg, David. (2004). Reconceiving Environmental Justice: Global Movements and Political Theories, *Environmental Politics* 13(3): 517-540.

Shastri, Y., & Diwekar, U., (2006). Sustainable Ecosystem Management Using Optimal Control Theory: Part 1 (Deterministic systems). *Journal of Theoretical Biology*, 241, 506–521.

Society for International Development (SID) Report (2011).

Sterner, Thomas. (2003). Design of Policy Instruments, (Chapter 18), in, *Policy Instruments for Environmental and Natural Resource Management*. pp. 212-218.

Thirlwall, A.P., (2006). *Growth and Development, With Special Reference to Developing Economies*, 8th Edition, Oxford, Oxford University Press.

Tumushabe G. (2005). Poverty, Agriculture and Environment: Learning Through Case Studies UNDP, (2011). *Regional Integration and Human Development: A pathway for Africa*, Bureau for Development Policy.

UNEP, 2005. Register of International Treaties and Other Agreements in the field of Environment

Van Langenhove, L. (2003), *Regional Integration and Global Governance*, UNU Nexions, (August):1-5.

Waltz, K., (1989), The Origins of War in Neorealist Theory, in, *The Origin and Prevention of Major Wars*, Rotberg, R., Rabb, T.,(Eds), New York, Cambridge University Press

Weber, E.P., Lovrich, N., & Gaffney, M., (2005). Collaboration, Enforcement, and Endangered Species: A Framework for Assessing Collaborative Problem-Solving Capacity, *Society and Natural Resources*, 18: 677–698.

WTO, (2011). Regional Integration in Africa, World Trade Organisation.

Zhu, Q., and Sarkis. J., (2006) An inter-Sectoral Comparison of Green Supply Chain

Management in China: Drivers and practices, Journal of Cleaner Production. 14: 472-486.

Annex

Questionnaire:

Dear Respondent,

I am undertaking a Masters programme in International Studies at the Institute of Diplomacy and International Studies (IDIS), University of Nairobi, Kenya. As part of the course requirements, I am carrying out a research project in a relevant issue of International interest. My research is to assess the implications of the EAC integration on the Management of the Environment.

I am therefore requesting you to kindly take a little time to fill in the information for me. All the information and views expressed in this questionnaire will be treated with confidentiality and used only for the purposes of this research and no opinion will be attributed to any individual.

1: Respondents profile

1.1:	Name:						
1.2:	Organization's Name:						
1.3:	Type of Organization:						
Inter-g	governmental ()	Government ();	Private ();	NGO ();	CBO ();		
Other	ther, Please specify:						
1.4:	Country						
1.5:	e-mail address						

2: Environmental Challenges:

2.1: In your opinion what is the level of environmental challenges in EAC

i. Very High	ii. High	iii. Moderate	iv. Low	v. Very Low
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2.2: Rank the following environmental challenges in order of severity of threat to EAC:

Challenge/Threat	Very	High	Moderate	Low	Very Low
	High				
Climate Change					
Food Insecurity					
Floods					
Drought					
Declining water					
Quantity					
Declining Water					
Quality					
Loss of Bio-					
Diversity					
Waste					
management					

3: EAC policies to respond to Environmental Challenges in the Region:

3.1: In your opinion, how adequate are the EACs policies in responding to the various environmental Challenges in the region?

I: Very Adequate _____ ii: Adequate _____ iii: Inadequate _____ iv: Highly inadequate ____

3.2: In your opinion, what is the main cause of weaknesses (if any) in making these policies effective?

i: Weaknesses in the policies _____ ii: Weaknesses in the implementation _____

Elaborate on your response to above:

3.3: Accord	ing to the EAC	C Treaty, all decisior	as are by consensus: How s	suitable is this method
in implemen	nting effective	policies to manage	the environment in the EAG	C Region?
I: Very Suit	able	ii: Suitable	iii: Unsuitable	iv: Very Unsuitable
Elaborate:				
 3.4: The ma	in role of the I	EAC (and LVBC) se	cretariat is coordination of	activities of the
community.	How effective	e is the Secretariat ir	1:	
I: Formulati	on and implen	nentation of Environ	mental policies (In a scale	of 1-5, where 5 is
highly effec	tive and 1 is h	ighly ineffective)?		
I:5()	ii: 4 ()	iii: 3 ()	iv: 2 ()	v: ()
II: impleme	ntation of the j	policies		
I:5()	ii: 4 ()	iii: 3 ()	iv: 2 ()	v: ()
3.5: What a	re the main cha	allenges (if any) of t	he EAC Secretariat in coor	dinating the formulation
and implem	entation of pol	icies to manage the	environment?	

3.6: Propose ways of overcoming challenges In 3.5 above

3.7: The EAC through Lake Victoria Basin Commission (LVBC) has a number of environmental projects and programs aimed at ensuring sustainable development of the lake basin; how effective have these projects been in achieving this objective?

3.8: Propose any changes in approach which could improve the environmental management practices in the basin

4. In overall, what is your rating of the various efforts put in place by EAC in managing the environment?
