

FACULTY OF LAW

UNIVERSITY OF WESTERN CAPE

**Similar Solutions for Similar Problems: Harmonising Energy Trade and Investment
Policies and Strategies in the East African Community**

Mini-dissertation submitted in partial fulfilment of the requirements for the LLM: International



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by

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Declaration

I, Joseph Mary Kikonyogo, do hereby declare that this mini-thesis is the result of my own work and findings except where it is stated otherwise; and that it has not been submitted for any degree or its equivalent in any other university or institution of higher learning.

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Abstract

Sustainable Energy (oil, gas and electricity) plays an important role in advancing productive capacity and increasing economic growth and sustainable development. In order to achieve this, there must be effective trade and investment in energy. Currently, there is relatively low regional and international trade in energy in the East African Community (EAC). Local and foreign direct investment flowing into the EAC is still very low in spite of a number of measures, such as, investment protection guarantees, that have been taken to improve investment.

Each of the five countries in the EAC has its own energy policy, as well as a trade and investment policy and strategy. For some the policies are clearly stated; for others they are presumed. However, these policies are not effective. Without effective policies on trade and investment protection and promotion, the EAC will have minimum benefits in terms of terms of trade, investment inflows and sustainable economic development. The EAC is a customs union with an ultimate aim of attaining a political federation. Before this happens, there is need to have effective but also harmonised trade and investment policies and strategies. Adoption of comprehensive harmonised trade and investment policies and strategies shall provide a guideline to the Governments, the trade and investment agencies and other relevant stakeholders to follow in order to attain the ideals, objectives and spirit of the Community.

This research, therefore, aims at proposing effective and harmonised trade and investment policies and strategies that Member States should pursue in order to develop the EAC into a viable integrated energy trade and investment zone. The study involves a review of the current policies, strategies, laws, regulations and practices in trade and investment in energy and a discussion of how the situation can be improved. The research raises many suggestions on conservation of energy as well as use of alternative sources of energy. Throughout, the study specifically advocates for sustainable energy use as a prerequisite to attaining sustainable development and it advocates for a common EAC approach to issues of energy through an energy policy for the EAC.

Key Words

East African Community; Energy Laws, Policies and Strategies; Trade Policies; Investment Policies; Sustainable Development; Electricity; Oil; Gas; Access to Energy; Competition.



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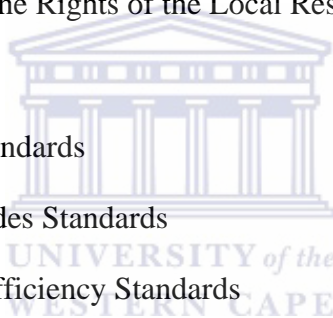
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Abbreviations

ACP	African, Caribbean and Pacific
ADR	Alternative Dispute Resolution
AEC	African Economic Community
AFREC	African Energy Commission
AU	African Union
BIT	Bilateral Investment Treaty
BR&D	Bioclimatic Research and Development
COMESA	Common Market for Eastern and Southern Africa
COMEST	World Commission on the Ethics of Scientific Knowledge and Technology
DR Congo	Democratic Republic of Congo
EA	Energy Agency
EAC	East African Community (the Community)
ECA	Economic Commission for Africa
EIA	Environmental Impact Assessment
EMCA	Environmental Management and Co-ordination Act (Kenya)
FACE	Forests for Absorbing Carbon Emissions
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GJ	1 tOE (ton oil equivalent) = 41,868 GJ (GigaJoule)
ICC	International Chamber of Commerce
ICJ	International Court of Justice
ICSID	International Centre for Settlement of Investment Disputes
IPAs	Investment Promotion Authorities/Agencies

IPP	Independent Power Producer
KEBS	Kenya Bureau of Standards
MEMD	Ministry of Energy and Mineral Development (Uganda)
MFN	Most Favoured Nation
MIGA	Multilateral Investment Guarantee Agency/Agreement
MTOE	Million Ton Oil Equivalent
NAFTA	North American Free Trade Area
NEMA	National Environment Management Authority/Act
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
PIEA	The Petroleum Institute of East Africa
PV	Photovoltaic
R&D	Research and Development
RURA	Rwanda Utilities Regulatory Agency
SADC	Southern African Development Community
SI	Statutory Instrument
UEB	Uganda Electricity Board
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
URA	Uganda Revenue Authority

USA	United States of America
UWA	Uganda Wildlife Authority
VAT	Value Added Tax
WEA	World Energy Assessment



Preface

Laws, policies and strategies governing sustainable energy together with their counterparts governing trade and investment are indispensable for promoting sustainable development. Yet the connection between energy and sustainable development particularly in the EAC is only recent. EAC countries have more or less the same development and energy needs, with few disparities in the levels of each. What is required to achieve sustainable development in one country is not very different from what is required in another.

This study, therefore, aims at suggesting that similar solutions should be found for similar problems. With the specific focus of the study being energy for sustainable development, it discusses the current poor state of energy in the EAC and suggests ways of improving this situation. To achieve this aim, the dissertation is divided into six chapters.

Chapter One is a general introduction to the background and nature of the problem under investigation. The Chapter clearly outlines the aims, objectives and scope of the study. The need for a single energy policy for the EAC aiming towards sustainable energy for sustainable development is put in context in this introductory Chapter.

The study proceeds in Chapter Two with an overview of the energy policies, strategies, and legislative, regulatory and institutional frameworks of EAC countries. The policies are compared and contrasted, and suggestions are made towards achieving a policy that will achieve sustainable energy use and thus sustainable development.

Chapter Three discusses the issues of accessibility, reliability and affordability of energy through trade in sustainable energy. Market economy and competition are two major principles promoted in this Chapter.

Investment in energy is throughout the study seen as inevitable for increasing access to energy and thus achieving sustainable development. Chapter Four, therefore, is devoted to the principles that would enhance investment in energy in the EAC. Particular attention is given to renewable energy resources as the best alternative energy sources for the EAC.

Finally, before Chapter Six sums up the whole study, Chapter Five discusses in some detail the imperative for sustainable energy and how that imperative arises both legally and ethically. Several measures and standards are suggested to maintain sustainable energy.

Chapter One

Introduction

The East African Community (EAC), sustainable energy and sustainable development, energy policies, strategies and legislation, and trade and investment practices are some of the major themes of this study. This Chapter, therefore, introduces these issues, and explains how they form the research problem. The Chapter also gives the general scope of the study, including its aim and objectives, as well as its anticipated significance.

1.1. Background to the Problem

1.1.1. The EAC

The EAC is a regional intergovernmental organisation comprising the Republics of Kenya, Uganda, Rwanda, and Burundi, and the United Republic of Tanzania. The EAC aims at widening and deepening co-operation among the partner states in, among others, the political, economic and social fields for their mutual benefit.¹ To that effect, the EAC aspires to achieve a monetary union in 2009 and a federation by 2010. The main reason for the countries moving towards regional integration is economic development. Sustainable economic development significantly hinges on a favourable trade and investment environment. Moreover, many trade and investment related activities and progress in all fields of development in the EAC depend on sustained energy supply, particularly electricity, oil and gas. Without dependable energy supply, health services, education, politics, military operations, trade and investment collapse.²

For energy supply to be dependable enough to foster sustainable economic development in the EAC, there should be an effective and unified energy policy in place. This is lacking in the EAC. Each country has its own approaches to energy trade and investment. These, however, are neither effective nor uniform. Each country operates alone and the results do not promote economic development. It is of paramount importance, therefore, that the EAC puts in place a viable and harmonised energy policy, which will address the problems of trade and investment in sustainable energy.

¹ See the EAC Home Page: <http://www.eac.int/> Accessed 10/09/2008.

² United Nations Economic Commission for Africa. *Assessing regional integration in Africa: ECA policy research report*. (2004) [Online] Available at: www.uneca.org. Accessed 31/10/2007.

1.1.2. Sustainable Energy and Sustainable Development

The Brundtland Report defines sustainable development as “development that meets the present without compromising the ability of future generations to meet their own needs”.³ The term ‘sustainable energy’ must be considered within this context to refer to “energy that is capable of meeting the needs of present generations without compromising the ability of future generations to meet their own energy needs”.⁴ The World Energy Assessment (WEA) defines sustainable energy as “energy, which is produced and used in ways that support human development over the long term, in all its social and economic and environmental dimensions”.⁵ Three elements that a good energy policy must pay attention to can be identified in energy sustainability as follows: energy efficiency, which concerns the productivity from the primary energy consumed; energy conservation, which is the reduction of energy use; and renewable energy sources.⁶ Energy strengthens and drives the productive capacity of any society since issues of sustained energy extraction, production, and use touch the very basis of a society’s economic life.

Despite the fact that energy use has profound general welfare implications, the 1992 historic United Nations Conference on Environment and Development in Rio did not explicitly address the place of energy in sustainable development in its Agenda 21, the major outcome of that Conference.⁷ Out of the Rio summit, the United Nations (UN) became closely involved in a concerted effort to explore the linkages between energy and sustainable development. Through the intergovernmental process, which established the UN Commission on Sustainable Development (CSD) after the Rio summit, the UN brought the question of energy as driver for development into the wider debate on sustainable development. The CSD for the first time considered questions of energy in their totality within the UN system in the context of sustainable development at its Ninth Session. The CSD’s decision on energy begins by affirming

³ World Commission on Environment and Development *Our common future* (1987) 43

⁴ Worika I ‘Energy Development and Utilization in Africa’ in Bradbrook AJ, R Lyster, RL Ottinger & W Xi (eds) *The law of energy for sustainable development* (2005) 327

⁵ IUCN Commission on Environmental Law and its Climate and Energy Working Group, “Brainstorming Session in the World Energy Assessment and Sustainable Energy Outreach”, March 12, 2003, at 1 quoted in Worika (2005) 327.

⁶ Barton B ‘Electricity Market Liberalization and Energy Sustainability’ in Bradbrook AJ, R Lyster, RL Ottinger & W Xi (eds) *The law of energy for sustainable development* (2005) 449

⁷ The Rio Declaration On Sustainable Development – Agenda 21

that energy is central to achieving the goals of sustainable development.⁸ The CSD recognised that current patterns of energy production, distribution and utilisation are unsustainable vis-à-vis the priorities in developing countries to eradicate poverty. The work of the CSD established a baseline of consensus on the nexus of energy and development.

Flowing from the detailed consideration of energy at the CD-9, the 2002 World Summit on Sustainable Development held in Johannesburg, South Africa, considered and affirmed the importance of energy as an area on which sustainable development hinges.⁹ The Johannesburg Plan of Implementation references ethical concepts as values to improve access to energy and resources, noting the importance of access to energy for human dignity based on the concept of sustainable development. Article 5*bis* of the Johannesburg Plan of Implementation,¹⁰ which acknowledges the importance of ethics in sustainable development, reflects a renewed ethical awareness among states. Article 5*bis* recognises some Rio principles of sustainable energy, such as, the precautionary approach, common but differentiated responsibility and public participation,¹¹ and the concepts of common heritage of humanity, common concern of humanity and sustainable development,¹² as already making up the framework and forming part of international environmental law. While the concept of sustainable development in this respect forms part of international law, it is not merely a component of it as indicated in the Johannesburg Plan of Implementation. The concept of sustainable development is the very basis of legal principles because it cannot be broken down to existing principles of international law: sustainable development sets the tone for interpreting, applying, and developing the law;¹³ it “is a key benchmark for all nations and the fabric for weaving the rules for our common future”.¹⁴

⁸ Commission on Sustainable Development, Report of the Ninth Session, U.N. doc. E/2001/29, Decision 9/1 at para. 1, Available at: <http://www.un.org/esa/sustdev/csd/ecn172001-19e.htm> quoted in Mak K-N and F Soltau ‘Policy Options’ in Bradbrook AJ, R Lyster, RL Ottinger & W Xi (eds) *The law of energy for sustainable development* (2005) 207

⁹ United Nations *Report of the World Summit on Sustainable Development* (2002)

¹⁰ See ‘Plan of Implementation’ in the United Nations *Report of the World Summit on Sustainable Development* (2002)

¹¹ Rio Declaration on Environment and Development (1992), principles 15, 7, and 10

¹² Preamble of 1992 Convention on Biological Diversity and Preamble of 1992 Framework Convention on Climate Change

¹³ See the WTO Appellate Body’s decision in the *Shrimp-Turtle Case* (WTO Appellate Body (1998) WT/DS58/AB/R)7-9

¹⁴ Bosselmann K ‘Ethical Implications’ in Bradbrook AJ, R Lyster, RL Ottinger & W Xi (eds) *The law of energy for sustainable development* (2005) 79

Since energy was undoubtedly one of the most crucial issues, the World Summit also endorsed the goal of the New Partnership for Africa's Development (NEPAD) to secure sustainable development through ensuring access to energy for at least 35 percent of Africa's population within twenty years.¹⁵ This would involve ensuring efficient use of energy, the promotion of greater reliance on advanced and cleaner fossil fuel technologies, and, most importantly, establishment of domestic policies and strategies for energy efficiency.¹⁶ There is a proposal under NEPAD to adopt an Energy Protocol to establish an environment conducive to investment, and to harmonise laws and standards, to further regional integration and energy trade.¹⁷

1.1.3. Energy Policies vis-à-vis Access to Sustainable Energy in the EAC

The energy sector is vast and it has many subsectors. However, in this study, the emphasis is on electricity (power), oil and gas. The power subsector covers generation, transmission, distribution and consumption of electricity. The gas subsector includes exploration and exploitation. The petroleum subsector covers both upstream and downstream industries, with the former dealing with exploration, development and eventual production of petroleum, while the latter covers transportation of both crude and refined products, refining, storage, distribution and marketing of petroleum products.¹⁸

At the heart of any sustainable development strategy lie policies to widen access to sustainable modern energy supplies. Such energy must be clean, efficient, sufficient, reliable and affordable. Despite policies in the EAC calling for the same, the energy resources in East Africa lack those basic characteristics. Only a very small percentage of East Africans have access to modern energy resources.¹⁹ Unfortunately, the prices are too high for the few who have access so that the majority in the end cannot afford to use modern energy. Even where there is access, the energy sector does not perform efficiently and it is not reliable. For example, power cuts are very common and warning is never given. Moreover, most of the resources, particularly petroleum products, are not clean and they are a disaster to the environment.²⁰ One reason for this is that the energy policies are weak and not harmonised with similar policies in the region, or with policies

¹⁵ United Nations *Report of the World Summit on Sustainable Development* (2002) para 62

¹⁶ Mak K-N and F Soltau (2005) 209

¹⁷ Ibid. 212

¹⁸ Uganda Energy Policy (2002) para 1.2.3

¹⁹ United Nations Economic Commission for Africa *Africa and the Monterrey Consensus: Tracking Performance and Progress, Economic Report on Africa* (2008) [Online] Available at: www.uneca.org Accessed 01/03/2009.

²⁰ Ibid.

for the other sectors in the economy.²¹ To achieve sustainable energy supply, energy policy reform in the EAC is inevitable, as it will significantly influence achieving sustainable development through sustained energy supplies. This goal will best be achieved by harnessing the limited resources and working towards a single energy policy for the EAC.

1.1.4. Trade and Investment in Energy vis-à-vis Sustainable Development in EAC

An emerging discourse in connection with energy and sustainable development is trade and investment. Energy has moved into the trade and investment arena dramatically and is increasingly playing an important role in advancing productive capacity and economic growth in the EAC. At the same time, the international law of trade and investment has also become relevant to an understanding of access to sustainable energy at both the international and national levels. This body of law primarily aims at regulating legal relationships to permit the efficient and profitable exploitation of energy resources.²²

Although the East African region has abundant energy resources, the EAC is an insignificant player on the world trade scene.²³ Moreover, the EAC has very low levels of foreign direct investment (FDI) in spite of measures, such as, investment protection guarantees, put in place to improve the investment environment.²⁴ For trade and investment in energy to generate sustainable development in the EAC, the broader alignment and delicate balance between international trade and investment, access to sustainable energy and sustainable development should be maintained. Achieving sustainable energy for the EAC will require closer co-operation to ensure compliance with energy trade policies without infringing the trade and investment rules.

Each of the five EAC countries has an energy policy and some policies integrate trade and investment strategies. Rwanda, for example, clearly and appealingly advertises investment opportunities in its energy sector.²⁵ The East African Business Council has also posted online a

²¹ United Nations Economic Commission for Africa (2008) para 2.2.3

²² Mak K-N and F Soltau (2005) 211

²³ United Nations Economic Commission for Africa (2008) para 2.2.3

²⁴ African Union 'Consultancy for the development of a common investment strategy for Africa' (2008) [Online] Available at: <http://www.africa-union.org/root/au/Consultancy.htm> Accessed 10/07/2008.

²⁵ See, for example, Electrogaz 'Investment opportunities in the Rwandan energy sector' [Online] Available at: http://www.ruralpovertyportal.org/english/regions/africa/rwa/agriculture_in_rwanda/CDRom/reports/donors/investmentO.doc Accessed 12/09/2008.

report on 'Business Opportunities of Energy Sector in Burundi',²⁶ and another one on Rwanda.²⁷ In Kenya the European Commission sponsored an 'Energy Sector Policy Overview Paper'²⁸ which highlights some areas in the energy sector, and the United Nations Environment Programme (UNEP) sponsored the Ministry of Planning and National Development to come up with a detailed report on 'Kenya: Integrated Assessment of the Energy Policy: With focus on the transport and household energy sectors'.²⁹ None of these two reports, however, focuses on attracting business or investment in energy in Kenya. Tanzania launched its National Energy Policy in 2003 and is now moving towards formulating a comprehensive energy strategy.³⁰ In 2006, the European Commission sponsored an 'Energy Sector Policy Overview Paper' in Tanzania.³¹ Uganda has had an Energy Policy³² since 2002, and its goal is to meet the energy needs of Uganda's population for social and economic development in an environmentally sustainable manner. Trade and investment in energy are not major elements of the policy.

None of the policies referred to above takes into consideration the fact that the countries belong to a regional block, the EAC. Similarly, none pays any attention to the activities of the neighbouring states. The summary above also indicates individual country efforts to improve the energy sector. There is, however, not much effort to include trade and investment strategies in the energy policies. Considering the divergences and all the problems stated above, the EAC needs a comprehensive and harmonised energy policy to replace the present policies. Without effective policies on energy trade and investment protection and promotion, the EAC will continue to be an insignificant player in the world economy in terms of trade, investment inflows and sustainable economic development. The ideals, objectives and spirit of the EAC to persevere in the facilitation and stimulation of trade and investment flows, technology transfer and

²⁶ Eastern Africa Business Council 'Business opportunities of energy sector in Burundi' (2007) [Online]. Available at: www.renewableseastafrica.de/media/14dedf9e805e286. Accessed 08/10/2008.

²⁷ Eastern Africa Business Council 'Business opportunities of energy sector in Rwanda' (2007) [Online]. Available at: http://www.renewableseastafrica.de/uploads/media/1210_ReportRwanda.pdf. Accessed 08/10/2008.

²⁸ Ngigi A & D Macharia 'Kenya energy sector policy overview paper' (2006) [Online]. Available at: www.enable.nu/publication/D_1_7_Kenya_Energy_Policy_Overview.pdf. Accessed 08/10/2008.

²⁹ UNEP Kenya: *integrated assessment of the energy policy* (2006) [Online]. Available at: www.unep.ch/etb/areas/pdf/Kenya%20ReportFINAL.pdf. Accessed 08/10/2008.

³⁰ United Republic of Tanzania 'Energy and environment in Tanzania' (n.d.) [Online]. Available at: <http://www.unep.org/GC/GCSS-IX/DOCUMENTS/Tanzania-1G-EnergyGen.doc>. Accessed 28/08/2008.

³¹ Arvidson A & M Nordström 'Tanzania energy sector policy overview paper' (2006) [Online]. Available at: www.enable.nu/publication/D_1_7_Tanzania_Energy_Policy_Overview.pdf. Accessed 08/10/2008.

³² Ministry of Energy and Mineral Resources 'The energy policy for Uganda' (2002) [Online]. Available at: www.energyandminerals.go.ug/EnergyPolicy.pdf. Accessed 08/10/2008.

innovation into the region through the adoption of comprehensive, harmonised trade and investment policies and best practice guidelines,³³ should guide EAC Governments, the Investment Promotion Agencies/Authorities (IPAs) and other relevant stakeholders.

1.2. Statement of the Problem

Because energy has a profound bearing on economic and human development, access to modern energy services plays a critical role in achieving meaningful sustainable development. Yet more than 81 percent of East Africans live without access to modern energy services, with the regional energy economy characterised by a very low energy per capita consumption and a heavy reliance on primary biomass fuels. For those who access modern energy services, they are inefficient, unreliable, and a cause of environmental degradation and disease.³⁴

Energy policies are new and their implementation is still very poor, perhaps due to lack of harmony with other policies in the economy, lack of harmony with energy laws, lack of commitment, poor planning or budgeting. Burundi does not even have an energy policy. To achieve increased energy access requires the promotion of harmonised policies and strategies, and the development of legal and institutional frameworks that ensure access to efficient energy services. Accessibility also requires the development of energy trade and investment programmes based on policy frameworks grounded in sustainable business models that focus on poverty reduction in rural and peri-urban areas.³⁵

1.2.1. Electricity

Millions of people in the region now use the electricity originally meant for only a few households and factories. In Uganda alone, for example, an estimated 4.5 million households, or 96 percent out of about 4.7 million, remain without access to electricity. Only 5 percent of the total population has access to grid supplied electricity.³⁶ In both Tanzania and Kenya, the percentage only rises up to about 10 percent, but to much less in both Rwanda and Burundi.³⁷ To apprehend the situation, EAC governments decided to privatise the supply of electricity. These

³³ See the EAC Home Page: <http://www.eac.int/> Accessed 10/09/2008.

³⁴ GTZ Eastern Africa Energy 'Overview of the energy sector and contribution to national economy' [Online] Available at: http://regionaleenergy-net.com/index.php?option=com_content&task=view&id=136&Itemid=89 Accessed 17/01/2009.

³⁵ Ibid.

³⁶ NEMA *State of the environment report for Uganda 2004/2005* (2004/2005) 25

³⁷ GTZ Eastern Africa Energy (n 34 above)

private companies embarked on upgrading dams with the approval of the governments. Upgrading the dams, however, has proved much more difficult than the governments claim, and electricity/power cuts are upsetting any intentions to do business and invest in the EAC.³⁸ Working together to improve the energy sector could be the best way to improve the situation. Thus, the United Nations Economic Commission for Africa (ECA) reports that many regional economic communities are aiming to minimise “energy costs by exploiting economies of scale through larger regional supply systems based on power pools and interconnected grids – and by developing environmentally benign power sources”.³⁹ This approach has not yet been realised by the EAC and integrating the energy sector through an energy policy would facilitate the improvement.

1.2.2. Oil and Gas

The EAC seems to suffer from a chronic lack of access to oil and gas. Most of what causes this, however, are issues the governments could respond to if they cared. Uganda, for example, has four national fuel reserves depots in Nakasongola, Kasese, Gulu and Jinja constructed in the 1970s with a strategy of avoiding a crisis in case of disruptions in the fuel supply.⁴⁰ The Jinja depots alone have a capacity of 30 million litres in equal proportions of diesel, petrol and kerosene. The government, though, does not use these reserves. In 2003, the government rented out the reserves to some private fuel companies and has never re-possessed them. In addition to the lease being dubious, the government did not keep any reserves of its own.⁴¹ As for the reserves, Buwembo, referring to this as a moral obligation, asserts:

It is, actually, more than a mere need; it is a moral obligation for a land-locked country to keep reserves of essential imports that it gets through its neighbours, because they could one day experience problems so severe as to make your right of access to the sea impossible to guarantee.⁴²

Uganda has failed in its moral obligation in spite of having an energy policy, a sign that the policy is neither efficient nor effective and probably a more forceful policy at the regional level will be the best solution.

³⁸ GTZ Eastern Africa Energy (n 34 above)

³⁹ ECA (2004) 2

⁴⁰ Editor ‘Investigate status of national fuel reserves’ (2008) *Daily Monitor* 10

⁴¹ *Ibid.*

⁴² Buwembo J ‘Love your neighbour, yes, but don’t sell off your oil reserves’ (2008) *The East African* 14

Besides Rwanda, EAC governments do not own any fuel stations, and do not have any control over the pricing of fuel. Thus, each petrol station/oil company sets its own price. In a place like Uganda, where the daily fuel consumption is about 1.2 million litres of diesel, and about 540,000 litres of petrol,⁴³ getting such an amount of fuel is impossible with neither reserves nor direct oil pipelines from either Kenya or Tanzania. Common oil pipelines can best work with a common policy. The ECA emphasises the need to accelerate the implementation of power pooling and gas pipeline programs have already been initiated, such as, the Zambia-Tanzania-Kenya Power Interconnector, and the Kenya-Uganda Oil Pipeline.⁴⁴ This study will assess these examples of attempts to harmonise investment in energy, with a view to proposing a common energy policy for the EAC.

The chronically poor supply and management of electricity, the uncertain trade in oil and gas, and the lack of co-ordination of efforts to improve these sectors, are at the basis of this research. These challenges call for special attention through a harmonised energy policy for the EAC.

1.3. Aims of the Research

1.3.1. Primary Aim

The primary aim of the research is to propose trade and investment policies and strategies in sustainable energy that EAC Member States should pursue in order to achieve economic development. These will include, among others, suggestions for the harmonisation of trade and investment regimes in electricity, oil and gas, including policies, laws and practices in accordance with the best practices within the overall strategy towards regional integration.

1.3.2. Specific Aims

- i. To analyse the energy trade policies and strategies in the EAC, identifying the impediments to trade and suggesting ways of enhancing the economies of scale.
- ii. To study and determine the policies, strategies and best practices that Member States, collectively, need to adopt to make the EAC a viable and credible energy investment destination.

⁴³ Editor (2008) 10

⁴⁴ ECA (2004) 69

- iii. To examine the sustainability of energy in the EAC and suggest ways to promote sustainable energy use.

1.4. Hypothesis

Unharmonised, unfocused and poorly drafted energy policies and strategies in the EAC make the region an insignificant player in world trade, and stagnate economic development in the region. There is, therefore, a need to have viable and harmonised policies and strategies.

1.5. Research Methodology

This is primarily a literature based study that involves a review of the energy, trade and investment laws, regulations, policies, strategies and practices in each of the five EAC countries, with a view to harmonising them. The study also involves a situation analysis of trade and investment policies and strategies in energy in the EAC, identifying specific obstacles, such as, policy credibility, transparency of the legal and regulatory frameworks, property rights, transaction costs, risks and other impediments to enhancing trade and attracting investments. The study further involves an assessment of the role played by energy trade agencies, investment promotion agencies and other related stakeholders in facilitating and promoting trade and investment in energy, and suggests ways of making them more effective. To that effect, the relevant laws and policies are studied in as far as they concern trade and investment in sustainable energy.

1.6. Scope of the Study

This study is limited to the five countries that comprise the EAC. The research focuses on trade and investment laws, regulations, policies, strategies, and best practices in electricity, oil and gas. It, nonetheless, makes occasional references to other energy products in the region, and makes suggestions for alternative sources of energy.

1.7. Significance of the Study

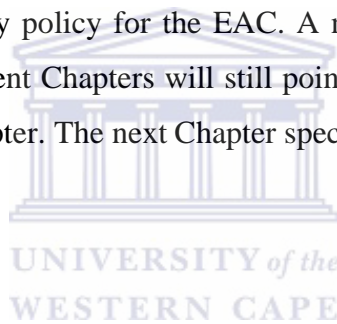
This study will be a helpful resource for subsequent researchers in energy policies, trade and investment policies, and the EAC. It will bring out the value of sustainable energy to sustainable development. Similarly, the study intends to suggest principles that must be included in a focused and harmonised energy trade and investment policy for the EAC. The policy will take into account, and analyse, laws, regulations, strategies and best practices that Member States

need to adopt to boost trade and investment in electricity, oil and gas. The new harmonised policy will boost the EAC's terms of trade and investment environment, and thus enhance economic development in the region.

The findings of this study, therefore, will be relevant to the Governments of the EAC, the traders, investors, investment authorities, and all stakeholders in the trade and investment of electricity, oil and gas. Once the key players acknowledge their actions and omissions, there is the likelihood that they will henceforth act more efficiently and effectively to bring about the benefits of trade and investment. By supporting the harmonising of the energy sector, this study could also contribute to an accelerated move towards an integrated EAC.

1.8. Conclusion

Conclusively, there are many reasons why this study needed to be undertaken to suggest basic principles for a harmonised energy policy for the EAC. A number of those reasons have been hinted at in this Chapter. Subsequent Chapters will still point to these problems, and respond to the objectives outlined in this Chapter. The next Chapter specifically looks at energy policies and legislation in the EAC.



Chapter Two

EAC Energy Policies and Strategies

The guarantee for sustainable energy production and consumption depends on a combination of policy initiatives, strategies, legislation, trade and investment measures, rather than on one factor. To place these concerns in perspective, this Chapter reviews and discusses policies, laws and regulations underlying trade and investment in electricity, oil and gas in the EAC as they influence sustainable development. As a matter of necessity, the EAC must adopt policies and strategies that widen access to sustainable energy. Policy makers in the EAC should face the task of putting in place policies that simultaneously address economic growth (accessibility), social justice (equity), and environmental protection.⁴⁵

2.1. Policies

EAC countries recognise the importance of energy policies and regulatory frameworks to create the right conditions for acceptable and environmentally sound energy production and services. Following this recognition, Uganda adopted an energy policy in 2002, Tanzania in 2003, and Rwanda and Kenya in 2004. Burundi does not have an energy policy, but there are reports on energy practices in Burundi. In addition, each country has legal and regulatory frameworks that deal with issues of energy supply and demand. Other than the disparities among states' policies and laws, the policies and the laws within the same state do not always agree. Worst of all, not all these policies specifically and necessarily promote access to energy, social justice and environmental protection,⁴⁶ as discussed below. Those that do, do not have strategies to effect the policy objectives.

2.2. Policy Objectives

All the policies state some objectives. For example, Tanzania's National Energy Policy objective is "to ensure availability of reliable and affordable energy supplies and their use in a rational and sustainable manner in order to support national development goals".⁴⁷ The aim of the energy policy, is "to establish an efficient energy production, procurement, transportation, distribution

⁴⁵ Gururaja J 'Financing Energy for Sustainable Development' in Bradbrook AJ, R Lyster, RL Ottinger & W Xi (eds) *The law of energy for sustainable development* (2005) 223-4

⁴⁶ UN-Energy/Africa *Energy for Sustainable Development: Policy options for Africa* (2008) 35

⁴⁷ Tanzania's National Energy Policy (2003) paragraph 1.3

and end use systems in an environmentally sound and sustainable manner”.⁴⁸ Similarly, the broad objective of Kenya’s Energy Policy is “to ensure the provision of adequate, quality, cost-effective, affordable supply of energy while ascertaining environmental conservation”.⁴⁹ For Rwanda, the objectives are to expand and diversify energy supplies at competitive costs, promote the efficient utilisation of the country’s energy resources, and minimise the potential unfavourable environmental impacts.⁵⁰ Uganda’s main energy policy goal is “to meet the energy needs of Uganda’s population for social and economic development in an environmentally sustainable manner”.⁵¹

Rwanda’s policy specifically mentions a number of priorities in the various energy sectors, which include rehabilitating key power facilities, and restructuring and privatising power supplies. Other priorities are building capacity for policy development and investment planning in key subsectors, such as, gas, hydropower, petroleum products, rural electrification, and renewable energy, and promoting the regeneration of forest resources damaged during the emergencies in the country.⁵² These priorities, though present in the policies of other EAC countries, are not as clearly stated as in the Rwandan policy.

What is common to almost all the policies are the policy objectives discussed below that include sustainability, energy security, energy efficiency, energy accessibility, renewable energy sources, and gender issues in relation to access to energy. Other policy issues will be discussed in subsequent chapters.

2.2.1. Sustainability

As stated above, Uganda’s main policy goal is to meet the people’s energy needs for social and economic development in an environmentally sustainable manner.⁵³ From this policy statement, it is clear that, for Uganda, development goes hand in hand with sustainability. In other words, energy sustainability is not inconsistent with the right of each state to promote economic

⁴⁸ Tanzania’s National Energy Policy (2003) paragraph 1.3

⁴⁹ GTZ Eastern Africa Energy ‘Overview of the energy sector and contribution to national economy’ [Online] Available at: http://regionalenergy-net.com/index.php?option=com_content&task=view&id=55&Itemid=94 Accessed 17/01/2009.

⁵⁰ Rwandese Authorities in Collaboration with the Staffs of the International Monetary Fund and the World Bank (1999) *Rwanda Enhanced Structural Adjustment Facility Policy Framework Paper, 1998/2000–2001/02* para 55

⁵¹ Uganda Energy Policy (2002) 5

⁵² Rwandese Authorities, IMF and WB (1999) para 55

⁵³ Uganda Energy Policy (2002) 5

development. However, it is the responsibility of each state to ensure that that development is not inconsistent with environmental objectives of reducing possible adverse impacts on human health to an absolute minimum.⁵⁴

Kenya's Energy Policy lays the framework for the provision of cost effective, affordable and adequate quality energy services on a sustainable basis.⁵⁵ However, these terms are not defined in the policy. It is thus hard to know exactly what is meant by, 'adequate', though it is easier to suppose that 'cost effective' and 'affordability' imply that the energy services should not be provided at a very high cost, and they should be fairly priced. Similarly, the national energy policy for Rwanda aims at ensuring a better use of the energy resources, while promoting socio-economic development in an environmentally sound and sustainable manner.⁵⁶

Tanzania's Energy Policy expresses the need to adequately take into account environmental considerations for all energy activities.⁵⁷ 'Adequately' is again not defined. The Policy further states that the vision of the energy sector is to contribute effectively to economic growth, thereby improving the standard of living in a sustainable and environmentally sound manner. Moreover, the mission for the energy sector in Tanzania's policy is "to create conditions for the provision of safe, reliable, efficient, cost-effective and environmentally appropriate energy services to all sectors on a sustainable basis".⁵⁸ The exact meanings of the terms used in the mission, are however, not given.

The idea of sustainability is, therefore, very prominent on the agenda of EAC energy policies, and it should be a major factor in an EAC energy policy. As will be developed in Chapter Five, sustainability necessarily implies respect for the environment, health and safety. It implies that energy supply and consumption must be moderated by the higher goal of respect for the environment. Only this mode of energy provision and use will lead to sustainable development and eventual poverty eradication. Sustainability presupposes efficiency as seen below.

⁵⁴ Bradbrook AJ and RD Wahnschafft 'International Law and Global Sustainable Energy Production and Consumption' in Bradbrook AJ, R Lyster, RL Ottinger & W Xi (eds) *The law of energy for sustainable development* (2005) 183

⁵⁵ GTZ Eastern Africa Energy (n 49 above)

⁵⁶ GTZ Eastern Africa Energy 'Overview of the energy sector and contribution to national economy' [Online] Available at: http://regionaleenergy-net.com/index.php?option=com_content&task=view&id=60&Itemid=93 Accessed 17/01/2009.

⁵⁷ Tanzania's National Energy Policy (2003) para 5(d)

⁵⁸ Ibid. para 1.2

2.2.2. Energy Efficiency

As recent trends in the adoption of energy policies by EAC countries show, there have been concerted efforts aimed at addressing and evaluating sustainable energy sources in East Africa with the aim of promoting the use of efficient energy sources and energy technologies which are both cost effective and environmentally friendly. The challenge is to put these efforts together, and harmonise them into one single energy policy for the region and increase efficiency.

Thus Tanzania's Energy Policy objective⁵⁹ is to provide for an input in the development process by establishing efficient energy production, procurement, transportation, distribution, and end user systems in an environmentally sound manner and with due regard to gender issues. Of all EAC energy policies, Tanzania's policy is particularly emphatic on energy efficiency. To that end, the policy enumerates its specific objectives as being the need to "reform the market for energy services and establish an adequate institutional framework, which facilitates investment, expansion of services, efficient pricing mechanisms and other financial incentives".⁶⁰ These are ways of achieving energy efficiency and other EAC countries need to emulate Tanzania's approach.

2.2.3. Energy Security and Accessibility

Currently the rate of access to modern energy sources within the EAC remains very low: electricity or other modern energy supplies are available only for a few urban centres and economic structures, with the majority of the poor excluded.⁶¹ Inadequate and unreliable access to modern energy remains a significant constraint to the development of industrial activities and increased agriculture productivity.

The EAC needs to secure its energy in terms of the source, control of the flow and distribution of energy, and having alternatives in place to allow EAC countries to withstand highs and lows associated with any commodity. Unfortunately, EAC countries are the antithesis of secure energy nations. The countries depend on foreign oil to the extent that the economies are precariously over the barrel—and any number of global events, including peaceful competition for supply,

⁵⁹ Tanzania's National Energy Policy (2003) para 5

⁶⁰ Ibid. para 5(b)

⁶¹ East African Community 'Strategy on scaling up access to modern energy services in order to achieve the Millennium Development Goals (MDGs)' (2006) 5

could cripple the states beyond anything ever seen in history.⁶² The lack of national and regional production of petroleum products raises a concern for energy security, which becomes a valid concern when considering sustainable energy policies.⁶³

Accordingly, Tanzania's Energy Policy expresses the need to have affordable and reliable energy supplies.⁶⁴ The adoption of renewable energy sources, the development of a national energy research agenda, and the financing of 90 day demand strategic petroleum stocks by the government and the private sector,⁶⁵ are some of the strategies named in Kenya's Energy Policy to enhance energy security. Correspondingly, the Rwanda Energy Policy aims at ensuring increased availability and price affordability of energy services, including grid and off-grid electrification, to rural areas.⁶⁶ Although there are implicit expressions in the individual country's energy policy as to security and access to energy, the level of demand for energy within the EAC is rising, and to date there has not been a comprehensive strategy to focus on reducing demand. A comprehensive EAC policy would focus on the sources of energy in each country, and try to balance it with the mode of consumption. Chapter Three will expand on the issue of accessibility.

2.2.4. Renewable Energy Sources

Renewable energy means "all non-fossil sources including, but not limited to biomass, geothermal, small hydropower, solar, wind, sewage treatment and plant gas".⁶⁷ Renewable energy sources are widely used in East Africa as alternative sources of energy. Wood, for example, which is one form of biomass, supplies up to 90 percent of energy needs in the EAC.⁶⁸ As the use of modern energy, such as, coal, petroleum, and natural gas, expands, the EAC becomes less reliant on wood as an energy source. However, the policies of the states need to look again at renewable resources to find new ways to use them to help meet energy needs. Renewable energy plays an important role in the supply of energy. When renewable energy sources are used, the demand for fossil fuels is reduced. Thus, Tanzania's Energy Policy expresses the need to enhance the development and utilisation of indigenous and renewable

⁶² Bradbrook AJ and RD Wahnschafft (2005) 183

⁶³ Ibid.

⁶⁴ Tanzania's National Energy Policy (2003) para 5(a)

⁶⁵ GTZ Eastern Africa Energy (n 49 above)

⁶⁶ GTZ Eastern Africa Energy (n 56 above)

⁶⁷ See Section 2 of Kenya Energy Act 2006

⁶⁸ East African Community (2006) 5

energy sources and technologies.⁶⁹ Similarly, Kenya and Rwanda's energy policies encourage wider adoption and use of renewable energy technologies to enhance their role in supplying energy. Related to this is the formulation of plans for biomass energy development, efficient biomass conversion and end use technologies in order to save resources.⁷⁰

This study encourages the use of renewable sources of energy as the best alternative to the inaccessible and unaffordable commercial energy sources. To that effect, Chapter Four further develops this issue and advocates for investment in renewable sources of energy in the EAC. Since these renewable sources are more or less the same and in the case of biomass even shared by EAC countries, their sustainable use will best be achieved within the framework of a regional energy policy.

2.2.5. Gender Issues

A specific need expressed in Tanzania's Energy Policy is to "increase energy education and build gender-balanced capacity in energy planning, implementation and monitoring".⁷¹ Rwanda's Energy Policy also intends to "promote gender equality in the search for energy especially in rural areas".⁷² Other policies express more or less the same intentions.

Gender issues are specifically necessary because inferior energy practices, particularly among poor households in rural and semi-urban areas, are mainly done by, and mostly affect, women and children. "The search, collection, and use of fuel-wood are associated with heavy and often low-productive time-consuming work, mainly performed by women. It also represents a serious health hazard through smoke and carbon dioxide generated by application of inferior stoves/fuel types."⁷³ The energy policies, therefore, need to introduce an institutional focus on improving rural and semi-urban energy practices in order to reduce women's workload, and to involve them in problem solving and decision making on energy issues.⁷⁴ With the similarity of conditions in the EAC, integrating gender issues in the EAC energy policy will be productive.

Overall, EAC Governments have been effective in formulating policies to create a conducive atmosphere for energy supplies and efficient utilisation. Nevertheless, realistic strategies for

⁶⁹ Tanzania's National Energy Policy (2003) para 5(c)

⁷⁰ GTZ Eastern Africa Energy (n 49 above) and GTZ Eastern Africa Energy (n 56 above)

⁷¹ Tanzania's National Energy Policy (2003) para 5(f)

⁷² GTZ Eastern Africa Energy (n 56 above)

⁷³ Tanzania National Energy Policy (2003) para 2.2

⁷⁴ Ibid.

implementation of the policies are either absent or too weak to accommodate the growing energy challenges in the country. It is necessary to develop realistic strategies to operationalise the policies. It is worth noting that only Tanzania attempts to outline strategies and policy statements for each policy objective. For the other countries one has to decipher the strategy from the policy. Unfortunately, theoretical frameworks are not the best package for action.

2.3. Strategies

‘Strategies’ are defined in Tanzania’s National Energy Policy as referring to the “fundamental features and considerations, which determine the development directions and structures of the energy sector”.⁷⁵ The strategies include transformation to a market economy, an independent regulatory regime, national interest versus market forces, regional co-operation and trade, energy conservation and efficiency, environmental management, and appropriate technologies,⁷⁶ such as, stoves and technology for charcoal production. Even where no specific strategies are given, EAC countries need to focus on implementing the policies. Harmonised and well thought out strategies will go a long way to promote sustainable development in the EAC.

2.3.1. Environmental Management

The environmental impacts of energy exploration, production, distribution and consumption crosscut all energy subsectors and all relevant sources of energy. In order to achieve sustainable energy, environmental impacts and hazards need to be addressed by environmental management regimes, which discourage any use of environmentally unsound energy technologies.⁷⁷ In almost similar terms, all EAC countries strive to fulfil this strategy. Chapter Five will develop this strategy further.

2.3.2. Energy Trade and Investment Arrangements

Kenya’s Energy Policy outlines a number of trading arrangements. These include the creation of a domestic power pool with provision for wholesale and retail markets to create competition and hence reduce the cost of electricity; streamlining trade in biomass; and increasing lifeline tariffs to recover the cost of electricity generation. On the investment side, Kenya’s Energy Policy

⁷⁵ GTZ Eastern Africa Energy ‘Overview of the energy sector and contribution to national economy’ [Online] Available at: http://regionaleenergy-net.com/index.php?option=com_content&task=view&id=57&Itemid=92 Accessed 17/01/2009.

⁷⁶ Ibid.

⁷⁷ Tanzania National Energy Policy (2003) para 2.2

suggests the divestment of the government from oil refining, marketing and transportation in favour of private sector investments.⁷⁸

The policies of all the countries recommend that a market oriented concept apply to the supply of energy products and services. Consequently, competition on a fair and equitable basis among independent actors is encouraged and seen as forming the basis for market efficiency.⁷⁹ Trade and investment issues will be considered in more detail in Chapters Three and Four, respectively. Suffice it to note right away, however, that it is important for the EAC to have common trade and investment policies if at all the region is to be a player in the world economy.

2.3.3. National Interest versus Market Forces

Rwanda's Policy recognises that the market does not meet all needs. Thus, when and where market forces fail to deliver desired results of achieving the national development objectives of economic growth and poverty reduction, the government's role is to intervene.⁸⁰ Thus, the reliance on market forces is not intended to hinder the role of the state to intervene when and where market forces fail to deliver desired results. For Tanzania, this is necessary for the protection and promotion of the interests of society as a whole. The State would do this by applying "transparent fiscal (taxes, duties, levies) and non-fiscal (fees, subsidies, concessional credits, guarantees) measures to direct market forces and, when necessary, correct market failures".⁸¹ For the EAC countries to keep their development goals in focus, this type of intervention can be made a matter of policy for all EAC countries.

2.3.4. Financial and Fiscal Implications

In each of the EAC member states, the energy sector represents a substantial part of the national economy. In policy terms, however, only Tanzania's Energy Policy strongly brings this to the fore. Governments are required to create a balance between the use of the energy sector for generating revenue and the need for affordable energy by limiting the impact of high taxes, levies and other duties on energy production costs. Continued opening up and liberalisation of markets and further introduction of competition at all levels of the energy sector are strategies to

⁷⁸ GTZ Eastern Africa Energy (n 49 above)

⁷⁹ Tanzania National Energy Policy (2003) para 2.2

⁸⁰ GTZ Eastern Africa Energy (n 56 above)

⁸¹ Tanzania National Energy Policy (2003) para 2.2

attain cost effectiveness in the production and supply of energy.⁸² The EAC Energy Policy needs to have a similar approach to financial and fiscal implications if prices are to be kept under control and if energy is to be made more accessible and affordable.

2.3.5. Regional Co-operation and Trade

Regional interconnection and integration of the power systems is essential for the EAC economies to achieve efficient energy markets. Thus, all EAC member states recognise the need for long term decisions based on regional energy considerations.⁸³ Similarly, the promotion of regional and international co-operation in exploration, development of infrastructure, trade, database and capacity building,⁸⁴ oil and gas pipelines, transborder power grids, regional research and development (R&D) institutions, and, in sum, regional approaches to energy issues are all necessary for achieving sustainable energy in the EAC.

2.3.6. Appropriate Technologies

Appropriate technology for the energy sector is necessary though it is not given much attention in the energy policies, apart from that for Tanzania. Tanzania's Policy recognises that there is a broad range of technological alternatives to be applied within the energy sector, consideration being given to the application of appropriate technologies that are affordable, environmentally sound and well adapted to local needs.⁸⁵ To achieve sustainable energy, EAC countries must choose the best technology for use in the energy sector. A common stance on this will help in dealing with importers of such technology or foreign investors who bring in technology.

The above discussion implies that there are viable strategies in the EAC to implement the policies earlier on discussed. What the EAC countries need to do is to harmonise their strategies, preferably through regional strategies, to achieve sustainable development through access to sustainable energy.

2.4. Responsible Organs for Policymaking and Implementation

In each EAC country certain government departments and special agencies bear the responsibility of licensing, operating, supervising, implementing, and monitoring energy

⁸² Tanzania National Energy Policy (2003) para 2.2

⁸³ GTZ Eastern Africa Energy (n 75 above)

⁸⁴ Tanzania National Energy Policy (2003) para 3.2.2

⁸⁵ Ibid. para 2.2

services. The same bodies may also bear the responsibility of enforcing compliance with the regulations governing energy services, and they are the key organs in the enhancement of trade and investment in energy resources.

In Uganda there are three government institutions responsible for formulating the energy policy and implementing energy programmes. The Ministry of Energy and Mineral Development (MEMD) is responsible for the overall management of the sector, dealing specifically with energy policy formulation, implementation and monitoring.⁸⁶ The Electricity Regulatory Authority (ERA) is responsible for regulating the electricity sector by issuing licences for the generation, transmission, distribution or sales of electricity in the country. ERA also establishes a tariff structure and approves rates and tariff charges. There is also the Rural Electrification Agency whose mandate is to facilitate provision of electricity in the rural areas.⁸⁷

As part of the liberalisation process, Uganda Electricity Board (UEB) was unbundled to create different business entities for generation, transmission and distribution known as Uganda Electricity Generation Company Limited (UEGCL), Uganda Electricity Transmission Company Limited (UETCL) and Uganda Electricity Distribution Company Limited (UEDCL) respectively.⁸⁸ The proposal was to lease out generation and distribution businesses to private operators on long term concession while transmission remains a public function in the medium term. Under this arrangement, UMEME, a private sector power company, now distributes electricity in Uganda, and the aim is to develop new generation capacities as Independent Power Producer (IPP) projects.⁸⁹

In Kenya there are a number of government appointed organs responsible for policymaking and implementation in that country. The Ministry of Energy is responsible for energy policy implementation and development, and licensing suppliers of energy services. The Ministry, therefore, is obliged to plan strategies for, and effect reforms in, the various energy subsectors whenever required. The Electricity Regulatory Board, Local Authority and Kenya Revenue Authority are also responsible for licensing. The Kenya Bureau of Standards (KEBS) attends to

⁸⁶ Uganda Energy Policy (2002) para 1.2.2

⁸⁷ GTZ Eastern Africa Energy 'Overview of the energy sector and contribution to national economy' [Online] Available at: http://regionalenergy-net.com/index.php?option=com_content&task=view&id=116&Itemid=90 Accessed 17/01/2009.

⁸⁸ Uganda Energy Policy (2002) para 1.2.2

⁸⁹ Ibid.

standards. The National Environmental Management Authority manages and co-ordinates the environment, while the Ministry of Planning, together with the Local Authority, deal with physical planning. Kenya's Energy Policy also suggests the creation of a Rural Electrification Authority to accelerate rural electrification.⁹⁰

In Burundi the Ministry of Energy and Mines, through the Directorate General of Energy (DGE), is responsible for the energy sector and lays down and implements the energy policy. However, electricity generation and supply involve two organisations. The first is Régie de Production et Distribution d'Eau et d'Electricité (REGIDESO), which operates Burundi's thermal power stations, and a small amount of hydro capacity. The second is Société Internationale des Pays des Grand Lacs (Sinelac), established by Burundi, Rwanda and Zaire, to develop international electricity projects.⁹¹

In Rwanda the Ministry of Infrastructure (MoI) has overall responsibility for the energy sector, while the Ministry of Energy (MINERENA) is involved in the planning of alternative energy supplies. Electrogaz provides electricity to the urban communities. Although it does not hold a statutory monopoly, Electrogaz has no competitors yet. The Rwanda Utilities Regulatory Agency (RURA), an independent multi-sector regulatory body, regulates both the electricity and gas sectors.⁹²

Finally, in Tanzania the Ministry of Energy and Minerals is responsible for policy formulation and implementation. The Energy and Water Utilities Regulatory Authority (EWURA) is responsible for the regulation of water and energy utilities, while the Rural Energy Agency/Rural Energy Fund (REA/REF) is responsible for the facilitation and funding of rural electrification projects.⁹³

Theoretically, competition, when applied to the energy sector, is a means to attain efficiency. This, however, is mostly seen in the petroleum market. Although generation of electric power is open to private and public investors as independent power producers (IPPs), not many IPPs have invested in the EAC. Tanzania considers that the solution could come from the region. Thus, regional co-operation and integration are given priority in investment "to ensure reliable supply,

⁹⁰ GTZ Eastern Africa Energy (n 49 above)

⁹¹ Eastern Africa Business Council (n 26 above)

⁹² Ibid.

⁹³ GTZ Eastern Africa Energy (n 75 above)

exploiting low cost energy sources for regional trade and balancing the erratic availability of hydro-based power”.⁹⁴

The presence of many regulatory institutions does not imply efficient and co-ordinated regulation of energy services, especially where different and unharmonised laws establish the institutions. On the contrary, in many instances it is a sign of overregulation with little or no co-ordination between the various institutions.⁹⁵ Regulatory institutions are either overstaffed with semiskilled or unskilled workforces, or are understaffed with skilled personnel.⁹⁶ “In either case, the number of highly skilled and motivated personnel, able and willing to implement and enforce compliance with the energy regulatory regime, is entirely insufficient.”⁹⁷ Reforms of the existing regulatory institutions should consider as paramount the principles of financial, procedural and substantive accountability.⁹⁸

EAC governments should facilitate sustainable development by providing stimulus for private investment initiatives, and promoting effective regulation, monitoring and co-ordination of the energy sector. The responsible ministries should supervise the implementation of the energy policies, which are the main guidance for change, backed by legislation and regulation. The ministries should also facilitate mobilisation of resources into areas where market forces fail to ensure adequate energy services. Legislation should determine the roles and relations of the different actors, the ministry, regulators and operators of the energy sector.⁹⁹ Working together, EAC countries will be able to achieve these goals.

2.5. Legal and Regulatory Frameworks

Most of the laws and regulations in the energy sector in the EAC were enacted before the concerned states had any energy policies. As such, they cannot be expected to be based on the

⁹⁴ Tanzania National Energy Policy (2003) para 3.2.1

⁹⁵ Worika (2005) 366

⁹⁶ A medical doctor currently heads Uganda Investment Authority (UIA), and another medical doctor is Minister of State for Mineral Development. The Minister of Energy holds a BA and MA and has no prior training in energy related issues, a psychologist heads Uganda Revenue Authority (URA), and a soldier with an MA in Conflict Resolution is Minister in Charge of Microfinance. The list is endless. It is generally agreed that appointments to all ministries and other public bodies in Uganda is primarily on political affiliation, with no regard to skill. (See, for example, Obore, C & T Butagira ‘Ugandan leader “rewards” royalists in cabinet reshuffle’ (2009) *BBC Monitoring Africa* [online] Available at: <http://www.rasbicawards.com/News.aspx?id=126658600&IQ=government> Accessed 09/05/2009).

⁹⁷ Worika (2005) 366

⁹⁸ Ibid. 367-368

⁹⁹ Tanzania National Energy Policy (2003) paras 1.4.4 and 3.2.1

current policies. The fact that they were enacted at different times and under different circumstances makes them devoid of any consistency with related laws within and between states, and one finds little or no effort to minimise environmental damage, protect health, promote safety, and address broader social issues.¹⁰⁰ It is only in legislation that is more recent that a difference can be seen. EAC states are slow, however, in amending the law.

Legislation, as recognised in Tanzania's Policy, is one of the main instruments by which governments can steer and control the development of the energy sector. An independent, autonomous, transparent, predictable and stable regulatory regime for the energy sector is seen as ensuring that the market functions without distortions. To safeguard its independence, the regulatory regime needs the support of legislation.¹⁰¹

Kenya's Energy Policy suggests the creation of an Energy Agency (EA) to facilitate prudential regulation, enhance stakeholder interests, and boost investor confidence, as well as the establishment of a single independent energy regulator. The EA consolidates the Electric Power Act of 1997 and the Petroleum Act Cap 116, and brings under its purview the other energy resources not covered by other legislation.¹⁰² Regulatory functions in the petroleum sector are shared among various players, including the Ministry of Energy, provincial administrations, local authorities and the KEBS. The Petroleum Institute of East Africa (PIEA), a voluntary membership institution, plays a key role in capacity building and awareness creation.¹⁰³

Kenya has until 2006 relied on the Electric Power Act and the Petroleum Act. The Electric Power Act has been criticised as revealing a bureaucratic licensing system, a state dominated supply monopoly, and a weak regulatory framework leading to high tariffs.¹⁰⁴ Moreover, it discouraged small scale energy generators from entering or expanding their operations in the market, failed to provide links with other licensing requirements to allow for greater efficiency, failed to provide tax incentives and subsidies, and was implemented in an opaque and unfriendly manner.¹⁰⁵ Due to all those inadequacies, the Electric Power Act and the Petroleum Act were repealed by section 123 of the Energy Act, 2006, which amends and consolidates the law relating

¹⁰⁰ Worika (2005) 361

¹⁰¹ Tanzania National Energy Policy (2003) para 2.2

¹⁰² GTZ Eastern Africa Energy (n 75 above)

¹⁰³ UNEP (n 29 above)

¹⁰⁴ Worika (2005) 364

¹⁰⁵ Ibid.

to energy, provides for the establishment, powers and functions of the Energy Regulatory Commission and the Rural Electrification Authority, and for related purposes. The Act now contains all principal legislation on electricity, petroleum and natural gas.

Uganda's Petroleum Supply Act, 2003, provides for the supervision and monitoring, the importation, exportation, transportation, processing, supply, storage, distribution and marketing of petroleum products. It also provides for the establishment of the ministry responsible for the petroleum sector as the regulatory authority, and provides for the licensing and control of activities and installations. It further provides for the safety and protection of public health and the environment in petroleum supply operations and installations, and it is meant to encourage and protect fair competition in the petroleum supply market. From just a reading of this long title, it is safe to say that the Petroleum Supply Act is quite up to date. This is especially explained by the fact that it was enacted after the Energy Policy, and it thus attempts to give legal force to the Policy objectives and strategies.

Kenya's Energy Act and Uganda's Petroleum Supply Act serve as some of the best examples of laws enacted in conformity with a policy framework. These serve as good examples of consolidation and amendment that the EAC could follow to have uniform legislation for sustainable energy.

2.6. Energy Sector Challenges

There are many challenges currently facing the energy sector in the EAC. These include: expanding and upgrading the energy infrastructure; promoting energy efficiency and conservation; mobilising requisite financial resources for the operation and expansion of energy services consistent with rising demands; ensuring security of supply through diversification of sources and mixes in a cost effective manner; increasing accessibility to all sectors of the population; and improving corporate governance and accountability.¹⁰⁶ To a very large extent, challenges facing one country are the challenges of another as well.

The weak power transmission and distribution infrastructure in the region is due to limited investments in power system upgrading. The economies, therefore, experience high electrical power system losses, extreme voltage fluctuations and intermittent power outages that cause

¹⁰⁶ Ngigi, A. & D. Macharia (n 28 above)

equipment and material damage, and losses in production. Moreover, power is very expensive and discourages trade and investment activities in the region.¹⁰⁷ The low level of electricity access explains the need for sustainable energy investment projects.

Similarly, the petroleum industry is constrained by limited supply facilities for fuels, the production of fuels, which do not meet quality standards, inadequate distribution of infrastructure which contributes to high product prices, and insufficient legal and regulatory frameworks to guide subsector operations in consonance with international best practices for liberalised markets, thus exposing the public to health, environmental and safety hazards.¹⁰⁸ Because of the inadequacies in the legal and regulatory frameworks, the petroleum subsector experiences “proliferation of substandard fuel dispensing facilities and kerosene and dumping of export fuels for illicit financial gains at the expense of both the consumer and government revenue”.¹⁰⁹

The energy policies and legislation for EAC countries are supposed to respond to these challenges. Yet, much as these policies and legislation have been in place for some time, the challenges continue. The suggestion in this study is to consolidate all these policies and laws into efficient EAC energy policy and legislation, so that each country assists the others to enforce the legislation. In that way, energy will lead to sustainable development.

2.7. Conclusion

Briefly, energy policies, strategies and legislation for EAC countries attempt in varying degrees to advocate for sustainable energy use for sustainable development. The theoretical framework, nonetheless, is far from the practical realities. Many challenges remain in the energy sector. To achieve sustainable development, the strong points of each policy, strategy and law should be put together and weak points dropped, to form a single unified energy policy, as well as strategies and legislation for the EAC. The unified policy will ensure that East Africans can access reliable energy at affordable prices. In the Chapter that follows, particular attention is paid to demand and supply (accessibility, reliability and affordability) through a discussion on trade in energy.

¹⁰⁷ Ngigi and Macharia (n 28 above)

¹⁰⁸ Ibid.

¹⁰⁹ Ibid.

Chapter Three

Trade in Energy in the EAC

Trade is a major issue when discussing energy and sustainable development. Energy is at the core of human (political, social and economic) activities and, therefore, trade in energy is a key factor for the EAC's competitiveness and economic development. The energy sector has an international and regional character by virtue of its participants and by the geography of the resources. This way, co-operation is necessary to ensure that energy is accessible to the consumers. This co-operation is more important in the EAC where most of the energy resources are imported, and no EAC country has achieved energy self-sufficiency. It is with this in mind that this Chapter proposes harmonisation of the laws and policies on trade in energy. This Chapter analyses the current state of regional trade in energy, and specifically advocates for continued efforts in market liberalisation, which has the benefit of competition. The position taken here is that competition normally reduces prices and thus allows more people to access and consume energy.

3.1. Access to Energy

As already stated, at the heart of any sustainable development strategy lie policies to widen access to modern energy supplies, that is, reliable, affordable, and efficient with reduced negative health impacts related to energy use.¹¹⁰ Moreover, energy in its various forms is essential for living a decent life and thus trade policies in the energy sector should allow for access by the world population to clean and affordable energy resources.¹¹¹ Trade policies that lead to limited access to modern energy have serious constraints on opportunities to earn incomes, which lead to improved living conditions and human development.¹¹² Primarily, access to modern energy services would involve a basic level of energy service that can meet, at least, basic requirements for home lighting, fans, radio, television, efficient appliances for cooking and fuel needs; and further services that could facilitate people's engagement in income generation activities.¹¹³ This is not the case in the EAC where commercial energy use is only a fraction of

¹¹⁰ Mak K-N and F Soltau (2005) 214 quoting the World Energy Assessment, UNDP, UNDESA, WEC (2000) 417

¹¹¹ Bradbrook AJ and RD Wahnschafft (2005) 182

¹¹² Johansson TB 'The Imperative of Energy for Sustainable Development' in Bradbrook AJ, R Lyster, RL Ottinger & W Xi (eds) *The law of energy for sustainable development* (2005) 47

¹¹³ Gururaja (2005) 224

the total energy consumption; the commercial energy resources are largely underdeveloped, and there is poorly developed energy infrastructure, including pipelines and electricity grids, to deliver commercial energy to the people.¹¹⁴ Moreover, poverty limits people's access to commercial energy.

3.2. Privatisation and Competition

Liberalisation of the energy markets is limited by public service obligations which enable EAC countries to pursue public policy considerations in opening up their energy markets. EAC member states can define public service obligations in the general economic interest, related to environmental considerations, security, regularity, quality of supply constraint, and pricing policy considerations. Competition on the other hand is limited by the degree of liberalisation and the fact that in the supply chain there are activities that are considered as naturally monopolistic (transmission and distribution network level).¹¹⁵

Privatisation of energy supply industries is generally perceived as one way of increasing efficiency in and accessibility to energy supplies. Privatisation however may not always be in the public interest, since private energy companies tend to focus on profit making with little or no regard for energy conservation and efficiency. Legislative and regulatory provisions should guide the privatisation process. These provisions can be listed to relate to three broad categories. The first is related to universal service, the second concerns the protection of the environment, and the third relates to security of supply considerations.¹¹⁶ These will support energy efficiency.

The concept of universal service¹¹⁷ contains the right to be connected to a grid, the right to be supplied with high quality service at affordable prices, and the right to receive high standards of customer service. The obligation to connect customers – that is, to guarantee the right to be supplied is the corollary of the monopoly situation and competition is viewed as the means of achieving this obligation, and to help meeting the obligation to supply customers with high quality service at affordable prices. National authorities also have the obligation to ensure that the competition fulfils these aims, and regulation is introduced as the “safety net” where

¹¹⁴ GTZ Eastern Africa Energy (n 87 above)

¹¹⁵ Palacio J ‘California’s electricity crisis’ (2001) 17:3 *Oxford Review of Economic Policy* 33

¹¹⁶ Helm D ‘The assessment: European networks-competition, interconnection and regulation’ (2001) 17:3 *Oxford Review of Economic Policy* 53

¹¹⁷ As used in this study, this concept refers to the communal use of energy resources by people in the EAC.

privatisation in the energy sector has occurred.¹¹⁸ Regulation is aimed at preventing unreasonable prices being charged by companies enjoying a strong or dominant position in a particular market area.

Liberalisation should also support environmental protection and security of supply.¹¹⁹ For instance, competitive pressure should lead to a more rapid replacement of inefficient electricity generation by new and far less polluting plants. Increased market integration within the EAC will provide higher levels of supply security, subject to the limits on physical interconnection capacity.

Privatisation opens the market to other companies thus eventually leading to competitive markets. However, competitive markets have some preconditions.¹²⁰ First, there must be several sellers, with none having a market share large enough to set prices. Second, there must be ease of entry and of exit in the market. Third, all competitors must have access to essential facilities and related information on equal terms. Finally, there is need for an effective regulator with a clear mandate to further competition,¹²¹ and choice, which can result in greater efficiency, better use of existing plant, better investment decisions, lower energy prices, and higher economic productivity.¹²² However, the energy markets need a lot of precaution before it is fully liberalised. As Balton states:¹²³

Electricity cannot be treated as merely another commodity; it is more fundamental to the economy than most things, it is still a public service in the eyes of many citizens, not a mere article in commerce, and it cannot be stored. Benefits such as higher operating efficiencies and lower retail prices do not automatically flow from the introduction of competition, and where they do occur they do not necessarily accrue to expected beneficiaries like small consumers. Newly liberalized markets do not automatically self-regulate. Competition is hard to produce, it takes a great deal of regulatory effort. Mere removal of legal monopolies

¹¹⁸ However, the creation of trade in energy raises issue of congestion resulting from unscheduled electricity flows. Such congestion can cause the network failure and decrease security of supply. This can be solved by sharing information, for instance, a day ahead so that energy users can plan alternative energy sources). See Balmaceda M *EU Energy Policy and Future European Energy Markets: Consequences for the Central and East European States* (2002) Arbeitspapiers, Mannheimer Zentrum fuer Europaeische Sozialforschung, No. 42

¹¹⁹ Palacio (2001) 34

¹²⁰ Pelkmans J 'Making network markets competitive' (2001) 17:3 *Oxford Review of Economic Policy* 74

¹²¹ Bradford PA 'Some Environmental Lessons from Electricity Restructuring' in Bradbrook AJ, R Lyster, RL Ottinger & W Xi (eds) *The law of energy for sustainable development* (2005) 411

¹²² Barton (2005) 455

¹²³ *Ibid.* 456

and restructuring of break integrated companies up into pieces will not suffice. Markets, paradoxically, need constant and diligent monitoring and a powerful independent regulator. The role of regulators, and their workload, has usually increased following the introduction of competition in many jurisdictions.

All EAC member states view privatisation as a necessary move towards achieving sustainable energy supplies. The Uganda Energy Policy, for example, clearly states that to increase access to modern affordable and reliable energy services as a contribution to poverty eradication, there is a need to attract private capital and management; promote competition between energy service providers; and promote the development of markets in energy technologies and services. Thus, open and competitive markets are fundamental to achieving efficient and sustainable energy.¹²⁴ Rwanda has also adopted the same trend to achieve similar intentions.¹²⁵ In Burundi, however, the power sector is still traditionally state owned and though privatisation has been on the agenda since 1989, civil and political unrest has slowed the process. REGIDESO, the national power authority, owns all the country's power-plants, and is responsible for power distribution in urban areas, while the Direction Générale de l'Hydraulique et des Energies Rurales (DHER) independently develops rural electrification projects.¹²⁶

Notwithstanding the challenges associated with privatisation in the energy sector, it is the more prudent way to liberalise the energy sector to promote competition in the energy market, which in effect leads to sustained energy supplies. In addition to the liberalisation of national energy markets, it is proposed that EAC member states set up conditions for access to the network for cross-border trade in electricity. This may include measures aimed at reinforcing the conditions, which encourage real and fair competition. Such integrated market should avoid conflicts among the member states and trading partners.¹²⁷ The liberalisation and regulation should instead contribute to security of supply, quality, consumer protection, environment, while at the same time they should bring real benefits in terms of competition, price and competitiveness.¹²⁸

¹²⁴ Uganda Energy Policy (2002) para 3.2

¹²⁵ See Rwandese Authorities, IMF, and the World Bank (1999) *Rwanda Enhanced Structural Adjustment Facility Policy Framework Paper, 1998/2000–2001/02* para 56

¹²⁶ Eastern Africa Business Council (n 26 above)

¹²⁷ Defilla S *Electricity markets in Europe – moving towards integration* (2002) Russia/Central Europe Executive Guide.

¹²⁸ Pelkmans (2001) 75

3.3. Regulation of Energy Markets

The establishment of the internal energy market within the EAC can be evaluated based on the institutional and functional performance of the EAC member states. The functional indicator concerns the development of markets as such and the impact of market opening on related important policy fields, such as, public service objectives, environment and security of supply.¹²⁹

The key institutional requirement relates to the degree of opening of the market.

Competitive energy markets need sophisticated regulatory regimes to ensure fair play, protect consumers, and ensure the financial viability of private investments. In this regard, two distinct types of regulation, namely, economic regulation and competition regulation should be used within the EAC energy sector for the sustained supply of modern energy resources in both the power and petroleum subsectors. This can be illustrated by the Ugandan energy sector regulatory system.

3.3.1. Power Subsector

In the electricity sector, all the EAC member states should choose to open up a larger share of their markets. In Uganda, the electricity subsector has been restructured; the new regulatory system for the power subsector is based on UEB unbundling, private concession for generation and distribution, and a 'single buyer' model.¹³⁰ The power system functions under an agreed and transparent set of rules and procedures for trading energy, which gives confidence to both private sector participants and consumers.¹³¹ Regulation is through the Electricity Regulatory Authority – an independent industry-specific regulatory body – established under section 4 of the Electricity Act. The main functions of the Authority as set out in section 10 of the Act are to issue licences and prescribe licence fees, to establish a tariff structure and to investigate tariff charges, to review the organisation of generation, transmission and distribution companies and to develop and enforce codes of conduct, performance and quality standards.

¹²⁹ Uganda, Kenya and Rwanda liberalised their energy markets. The criteria used here are based on the elements used in the Ugandan energy regulatory framework.

¹³⁰ Uganda Energy Policy (2002) para 1.2.2

¹³¹ Ibid.

With the current power situation, all EAC members need to consider electricity restructuring, which process could involve a number of things, such as:¹³²

- the separation of formerly vertically integrated utilities into individual components of generation, transmission, and distribution;
- open access by all sellers of power over the monopoly transmission wires to the purchaser(s) of the power;
- an ‘independent’ regulatory institution to set tariffs and issue licenses, normally with a goal of establishing tariffs that cover the full costs of producing and delivering electricity;
- competition among several different sellers of electricity generation;
- private ownership in the generation sector and perhaps transmission and distribution as well; and
- possible customer choice among different suppliers of electricity.

Much as these plans will be achieved over a long period, they must be kept as long-term goals due to the advantages that restructuring has. If properly carried out, restructuring would lead to increased efficiency in the electricity sector by providing substantial incentives to contain costs, to reduce corruption, and to increase investor confidence in the electricity sector.¹³³

Although, formal market opening is not a sufficient guarantee of choice, that is, competition, a certain degree of market opening should provide an indication of the real degree of competition. For instance, if the EAC is to introduce the supply side competition, investments are required. The transparent and non-discriminatory rules applicable for new investment, therefore, will be necessary for creation of competition. In addition, even if these investments take place, a high level of market power of existing generation companies may impose barriers to new entrants. Other issues that may be necessary for competition to be real within the EAC power sector include non-discriminatory access to the network and effective dispute settlement mechanisms, such as, trade tribunals and alternative dispute resolution (ADR) mechanisms. Indeed, in Uganda, all commercial disputes must start with ADR before litigation in the Commercial Court if ADR fails.

¹³² Bradford (2005) 407-408

¹³³ Bradford (2005) 407-408

3.3.2. Petroleum Subsector

The trade in petroleum products within the EAC could be viewed as a “naturally monopolistic” activity.¹³⁴ Although they are being unbundled, some products still have dominant position. In order to encourage new entrants, reduce possibilities for exercising market power and enable competition, rules are necessary. These rules are implemented through regulatory mechanisms. In order for the EAC member states to create competition, regulation is necessary not only in “monopolistic” parts of the sector, but also in the potentially competitive, at least until the competitive markets are established. In this regard, market liberalisation, appropriate regulation, improved use of existing networks and completion of missing links are complementary measures that will increase efficiency and competition, and ensure adequate level of quality, and thus enhanced sustainability.

In Uganda for instance, since the enactment of the Petroleum Supply Act, the petroleum subsector is regulated through an effective monitoring system instead of controlling prices. Private initiatives and investments are promoted and protected against discretionary interference, discrimination or favouritism by the authorities. Among the objectives of the Petroleum Supply Act is ensuring effective delivery of petroleum products and services to consumers and ensuring equal access to petroleum products of adequate quality at competitive prices for all consumers.¹³⁵ The Act also aims at encouraging and promoting fair competition within the petroleum supply market, to eliminate discrimination or preferential treatment of any participant and to prevent monopolistic control of any segment of the supply chain.¹³⁶

In Kenya, the petroleum subsector has been liberalised. The only direct government involvement in the petroleum industry is in the oil refinery government co-owns through the Kenya Petroleum Refineries Ltd (KPRL) with three private companies (Shell, BP and Chevron) on a 50-50 equity basis, and the oil storage facilities at Kipevu, capable of holding 1.5 million barrels.¹³⁷ In

¹³⁴ GFSE ‘Regional initiatives to increase energy access: the case of the East African Community’ (2006) [Online] Available at: http://www.gfse.at/fileadmin/dam/gfse/gfse%206/pdf/EAC_GFSE-6_Briefing_Paper.pdf Accessed 30/03/2009.

¹³⁵ Section 3(e) of the Petroleum Supply Act

¹³⁶ Ibid. Section 3(f)

¹³⁷ UNEP (n 29 above)

Rwanda, liberalisation has been much slower and the parastatal PETRORWANDA controls 40–45 percent of the market for petroleum imports.¹³⁸

Competition, defined as the market condition existing when there is a large number of business all able to supply the same or similar products to a large number of purchasers, does not exist evidently in most of the energy sectors within the EAC.¹³⁹ Liberalisation of the energy sector of some of the EAC members is not complete, due to the strict application of rules that provide safeguards (regulation), restricts competition and includes public service obligations. However, obligations of the public service should be defined in a non-discriminatory, transparent and objective manner. Hence, it should be clear up to what extent these obligations could justify restrictions to competition. Since the EAC energy market is being liberalised through individual member frameworks, the alignment process is quite complicated. Member states gradually liberalise markets, while keeping it regulated in order to ensure public service. On the other hand, the compliance with this public interest criterion should be evaluated on the grounds of several elements, which the EAC energy sector fails to meet. These are the existence of a functioning market economy; the extent to which government policy and legislation influence competitiveness through trade policy, competition policy, state incentives to local investors, etc.; the proportion of small and medium sized enterprises; and a sufficient amount, at an appropriate cost, of human and physical capital, including infrastructure.¹⁴⁰

3.4. Electricity, Oil and Gas Pricing and Taxing

3.4.1. Taxes

Revenue received from the energy sector forms the bulk of the source of finance for practically each of the EAC member states. In Uganda, for example, fuel taxes, value added tax (VAT) on electricity, levy on transmission bulk purchases of electricity, license fees and royalties, and foreign exchange earnings from power exports, are some of the major contributions to the treasury resources.¹⁴¹ In Kenya, the contribution of the energy sector to the overall tax revenue is about 20 percent, equivalent to 4 percent of GDP.¹⁴²

¹³⁸ Eastern Africa Business Council (n 27 above)

¹³⁹ European Commission, 'Toward a European Strategy for the Security of Energy Supply' (2000) *Green Paper*.

¹⁴⁰ GTZ Eastern Africa Energy (n 87 above)

¹⁴¹ Ibid.

¹⁴² GTZ Eastern Africa Energy (n 49 above)

Each of the countries has a tariff regulatory body. In Burundi, for example, electricity tariffs are regulated by the Government through appropriate mechanisms,¹⁴³ while in Rwanda, RURA, an independent organisation installed by the government, regulates electricity tariffs.¹⁴⁴ In Tanzania, Kenya and Uganda, revenue authorities set the tariffs.¹⁴⁵ Despite the presence of these bodies, energy tariffs remain complex and controversial and, at least in the electricity subsector, large volume consumers are being forced to implement their own generation systems to lower the costs and provide themselves with services that are more reliable.¹⁴⁶ The high consumer tariffs are due to operational inefficiencies and high taxes; such as, Uganda and Kenya's VAT of 18 and 16 percent, respectively.¹⁴⁷ The high taxes discourage consumers and they directly go against the aim of providing energy to the majority of East Africans. EAC states need to seriously consider these taxes and come up with a uniform lower tax for energy products.

3.4.2. Pricing

One of the results of privatisation is accurate pricing of energy whereby prices are determined by supply and demand, though other factors, such as, taxes, also affect the prices. Well functioning markets are generally the most efficient means of allocation of resources. However, as Uganda's Energy Policy notes, "where markets are imperfect, energy prices may not accurately reflect the full social cost and energy suppliers may not choose the most efficient options. In such cases, Government intervention may be warranted".¹⁴⁸ All EAC member states allow the Government to intervene under given conditions. Much as market forces are operational, governments have put in place regulatory bodies that set ceiling prices for energy products. Thus, the differences in prices are quite small.

The high cost of energy is one of the biggest bottlenecks to economic activity in the EAC, which continues to miss foreign direct investments partly because of this problem of high operational costs. Available data shows that the cost of electricity in Kenya is four times that of South Africa, the country's main competitor in the East and Southern region, and more than three times

¹⁴³ Eastern Africa Business Council (n 26 above)

¹⁴⁴ Eastern Africa Business Council (n 27 above)

¹⁴⁵ Tanzania Revenue Authority (TRA), Uganda Revenue Authority (URA), and Kenya Revenue Authority (KRA).

¹⁴⁶ Eastern Africa Business Council (n 27 above)

¹⁴⁷ VAT Act Cap 349 and its equivalent in Kenya

¹⁴⁸ Uganda Energy Policy (2002) para 3.3

that of China.¹⁴⁹ This discourages investors, and causes considerable losses on socio-economic development.

The high cost of energy is partly because the market structure for the energy sector is not yet adequately competitive. The entry into the market by many small-scale fuel and power suppliers is likely to increase competition in the market, thus lowering the prices.

3.5. Problems Affecting Trade in Energy

Unreliability of supply intensifies the problem of high costs and together they constitute a major challenge, especially for the manufacturing sector. EAC companies continuously lose high percentages of production due to power outages and fluctuations.¹⁵⁰ This excludes the losses from damaged equipment because of power interruptions. Moreover, there is considerable loss of power during transmission and distribution, partly due to illegal connections and vandalism on power system infrastructure. Inefficiency in energy use is also one of the factors impeding the competitiveness of the region's products in international markets.¹⁵¹

Another significant problem in the region is smuggling of petroleum products from one country to another. Smuggling is worsened by dumping of petroleum products, with its consequential implications to quality control, safety and loss of revenue.¹⁵² All EAC member states are faced with these problems. Consequently, in an effort to curb smuggling and adulteration of products, the Government of Uganda introduced compulsory biocode marking of all officially imported petroleum products in 2000.¹⁵³ Unfortunately, there is no known record of success of this system, nor of its full application. Enforcement of legal reforms remains a big challenge in the EAC.

3.6. Suggested Strategies

The EAC Treaty envisions an improved and expanded trading environment by promoting best practices in trade, harmonising investment codes, properly regulating the private sector and developing an East Africa Power Master plan.¹⁵⁴ If these plans are to bear fruit, they must be

¹⁴⁹ UNEP (n 29 above)

¹⁵⁰ Ibid.

¹⁵¹ Ibid. See also Tanzania National Energy Policy (2003) para 3.2.1.

¹⁵² Tanzania National Energy Policy (2003) para 3.2.2

¹⁵³ Uganda Energy Policy (2002) para 1.2.3

¹⁵⁴ See Tanzania National Energy Policy (2003) para 5.2 and for Rwanda see GTZ Eastern Africa Energy (n 56 above)

critically studied before being tried. Trying and failing will not go well with the aim of achieving harmonised policies and legislation.

On both the supply and demand sides, several strategies need to be pursued to achieve sustainable energy. On the supply side, these include the exploration and adoption of more renewable energy sources and advanced energy technologies, without sacrificing the environment.¹⁵⁵ These must be done in order to address the looming energy shortages and crisis that will continue to cost the region a lot.

Security of electricity supply needs to be enhanced through utilisation of other energy sources, such as, coal, natural gas, renewable energy and from regional grid interconnections.¹⁵⁶ For the purpose of electricity trading across the region, the existing contracts need to be strengthened based on the new policies and laws governing interconnections between country grids. Transboundary pipelines should be given similar attention. Such pipelines raise issues of passage rights, which would normally be included in Bilateral Investment Treaties (BITs)¹⁵⁷ or memoranda of understanding (MOUs). Similarly, on the national level, where exploration of oil is beginning (such as, Uganda), priority should be given to infrastructure development, including storage, distribution, retailing systems and handling transit products.¹⁵⁸

Furthermore, it is necessary to encourage private investment in development projects, based on a rational exploitation and management of resources, and the protection of the environment, health and safety.¹⁵⁹ The move to liberalise and regulate the energy sector needs to be promoted, while at the same time facilitating competition. There is a need to review regularly the legal and regulatory frameworks for the energy sector to take care of new issues. The sector needs an efficient regulatory framework in order to safeguard the interests of stakeholders and create a level playing field for the product suppliers and retailers.¹⁶⁰

The EAC also need to train personnel who can work in the energy sector and thus reduce dependence on foreign experts. Rwanda has specific plans for this; its Ministry of Energy (MINERENA) has put an energy development plan into action, to train more engineers,

¹⁵⁵ Johansson (2005) 50

¹⁵⁶ Tanzania National Energy Policy (2003) para 3.2.1

¹⁵⁷ Mak and Soltau (2005) 211

¹⁵⁸ Tanzania National Energy Policy (2003) para 3.2.2

¹⁵⁹ Ibid. para 3.2.1

¹⁶⁰ Ibid. para 3.2.2

electricians, and mechanics in the field of hydroelectric technology, maintenance, and design.¹⁶¹ Other EAC countries should emulate this example.

On the demand side, energy efficiency should be improved in its transmission, and where used in vehicles, buildings, electric appliances, and production processes.¹⁶² Electricity needs to be made reliable and affordable to users with very low demand, for lighting and limited domestic purposes. A system of threshold pricing for low consumption customers could be considered. In spite of the liberalisation, prices have to be monitored and predictable and transparent mechanisms should be established for necessary adjustments.¹⁶³

3.7. Energy Trade and Co-operation

There is much trade and co-operation in the energy sector among EAC members, and this comes out of a commitment the member states made in the EAC Treaty to cooperate in trade liberalisation and development.¹⁶⁴ For example, Uganda's UETCL has export contracts to Kenya (30 MW), Tanzania (9 MW) and Rwanda (5 MW). The 30 MW to Kenya was supplied only during off-peak hours, but since 2006 Uganda exports firm capacity of 50 MW to Kenya.¹⁶⁵ Tanzania continues to rely on imported petroleum products, and it imports electricity through cross-border interconnections of about 8-9 MW and 5 MW from Uganda and Zambia, respectively.¹⁶⁶ On the other hand, Rwanda imports all of its petroleum products from Kenya,¹⁶⁷ while Burundi imports all of its petroleum products from Kenya and Tanzania. For Burundi, however, a subsidiary of Amoco has an oil exploratory concession in and around Lake Tanganyika.¹⁶⁸ The installed power capacity in Rwanda is not sufficient to meet peak demands. The necessary additional generating capacities for Rwanda come from electricity imports from Congo's Ruzizi I power plant, from Ruzizi II community power plant (belonging to Congo, Burundi and the DR Congo), and from Uganda.¹⁶⁹

¹⁶¹ East African Business Council (n 27 above)

¹⁶² Johansson (2005) 50

¹⁶³ Tanzania National Energy Policy (2003) para 3.2.1

¹⁶⁴ See Chapter XI of the EAC Treaty.

¹⁶⁵ Uganda Energy Policy (2002) para 1.2.2. For a time around 2006 when Uganda experienced major supply shortages due to a prolonged drought, the expansion of the industrial sector and lack of investment in generation, Kenya exported electricity to Uganda. (See UNEP (n 29 above)).

¹⁶⁶ Tanzania National Energy Policy (2003) para 3.2.1

¹⁶⁷ Eastern Africa Business Council (n 27 above)

¹⁶⁸ Eastern Africa Business Council (n 26 above)

¹⁶⁹ Eastern Africa Business Council (n 27 above)

Guided by the Africa Energy Commission (AFREC), which was initiated by the OAU to spearhead energy co-operation among member states, and the EAC Treaty, which envisions the development of an East Africa Power Masterplan, all EAC member states more or less aspire towards achieving similar goals in trade and co-operation. To that end, both Tanzania's and Rwanda's Energy Policies state in similar terms that "co-operation between neighbouring countries in Africa and international bodies is vital for development and economic growth".¹⁷⁰

Tanzania has an added advantage of belonging to SADC. "Central to SADC's energy programme is the South African Power Pool (SAPP), under which the member states will be able to trade through a linked single electricity grid. SAPP's goal for interconnection between the countries is to create an enabling environment for trade in bulk electricity."¹⁷¹ That way, Tanzania stands to benefit from grid connections either under EAC or under SADC or both. This could be done in a spirit of maximising the potential gains from the regional and international energy trade and co-operation. Nevertheless, to achieve the benefits, each country needs to continue to be an active member of the regional and international bodies in energy sector development. Encouraging joint development of common energy resources would enhance co-operation and collective reliance and security of energy supplies.¹⁷²

The Government of Tanzania put across some policy statements to affect the above objectives. These include increasing collaboration within the EAC in the area of energy with emphasis on future interconnections, and facilitating international collaboration in research, exchange of data, information and documentation.¹⁷³ These policy statements are useful for other countries as well.

On the international scene, the GATT contains neither an explicit nor an implicit exemption for energy. In any case, the problems of international trade in energy have not been among the most significant issues addressed by the GATT. Such problems have tended to be resolved through other means. "The United States, for example, has imposed various restrictions on imports and exports of energy products based on national security, on the grounds of its needs for oil."¹⁷⁴ This however does not mean that the GATT does not apply to energy.

¹⁷⁰ Tanzania's National Energy Policy (2003) para 5.2 and GTZ Eastern Africa Energy (n 56 above)

¹⁷¹ Tanzania's National Energy Policy (2003) para 5.2

¹⁷² Ibid.

¹⁷³ Ibid.

¹⁷⁴ English, RD 'Energy in the NAFTA: Free Trade Confronts Mexico's Constitution' (1993) *Tulsa Journal of Comparative and International Law* 11.

Energy trade has become an issue under the WTO in the form of the General Agreement on Trade in Services (GATS), the two main issues being access for upstream services, that is, the activities related to fossil fuel service sector, and transmission and transit issues. Since cross-border trade is dependent on networks, the lifting of trade barriers alone is not sufficient, because proactive measures need to be taken to open up networks to imported energy. Regulatory frameworks and regulators are required to ensure access.¹⁷⁵ Measures must also be taken to ensure the transparency of prices to final consumers and to facilitate the transit of gas and electricity between the EAC's major grids.

3.8. Conclusion

This Chapter has presented the EAC position on accessibility to energy sources and concluded that access to modern/commercial energy sources is very low in the EAC. Even where there is access, the energy is hardly affordable or reliable. The issue of access to reliable and affordable energy needs serious consideration in the EAC. The countries will best work together to achieve this as they share the problem. Privatisation has been introduced as a way of ensuring that more people have access to modern energy. Positive results from this liberalisation are however yet to be seen. Trade in the energy sector still faces many problems and solutions have to be considered. Most of all, focus must be put to investment in the energy sector as one of the basic ways of assuring access to affordable and reliable sustainable energy.

¹⁷⁵ Mak and Soltau (2005) 213

Chapter Four

Investment in Energy in the EAC

Sustainable development cannot be achieved without adequate investment in the economy.¹⁷⁶ Economies develop on reliable investments in various sectors. For sustainable energy too, investment in energy is a prerequisite. Accordingly, this Chapter presents a brief overview of the state of energy investment in the EAC, before addressing ways in which the investment climate can be improved. Finally, the renewable energy sources are discussed as the cheaper alternatives on which investors could focus.

4.1. State of Investment in Energy

The EAC has some outstanding energy investment projects, some of which are mentioned in this Chapter. To begin with, it is necessary to understand what ‘investment’ means in the EAC, before looking at investment in particular subsectors of the energy sector.

4.1.1. Meaning of Investment

The term “investment” is defined in section 1(g) of Uganda’s Investment Code Act Cap 92 as meaning the creation of new business assets and as including the expansion, restructuring or rehabilitation of an existing business enterprise. This is a very limited definition, which leaves out a number of important elements. The definitions in the investment laws of the other EAC countries are no more detailed. However, EAC’s model BITs do provide more comprehensive definitions of investment. Thus, according to Article 1 of Kenya’s Model BIT, ‘investments’ means any kind of property invested by a natural or legal person being a national of one Contracting Party in the territory of the other, in conformity with the laws and regulations of the latter. Article 1 further outlines what ‘investment’ comprises:

- (i) movable and immovable property as well as any other rights *in rem* in respect of every kind of assets;
- (ii) rights derived from shares, bonds and other kinds of interests in companies and joint ventures;
- (iii) claims to money, to other assets or to any performance having an economic value;
- (iv) rights in the field of intellectual property, technical processes, goodwill and know-how;

¹⁷⁶ United Nations ‘Resolution 2 Plan of Implementation of the World Summit on Sustainable Development’ *Report of the World Summit on Sustainable Development* (2002) para 62

- (v) rights granted under public law or under contract, including rights to prospect, explore, extract and win natural resources
- (vi) the minimum volume of investment set at _____ million US dollars or the equivalent.¹⁷⁷

Similarly, Article 1 of Uganda's Model BIT defines investment as every kind of assets, such as, goods, rights and interests of whatever nature, and in particular though not exclusively:

- a) tangible, intangible, movable and immovable property as well as any other right *in rem* such as mortgages, liens, usufructs, pledges and similar rights;
- b) shares, premium on share and other kinds of interest including minority or indirect forms, in companies constituted in the territory of one Contracting Party;
- c) title to money or debentures, or title to any legitimate performance having an economic value;
- d) intellectual, commercial and industrial property rights such as copyrights, patents, licenses, trademarks, industrial models and mock-ups, technical processes, know-how, trade-names and goodwill, and any other similar rights;
- e) business concessions conferred by law or under contract, including concessions to search for, cultivate, extract or exploit natural resources, including those which are located in the maritime area of the Contracting Parties.¹⁷⁸

A reading of both provisions quoted above indicates that both Kenya and Uganda define investment in the same way. Burundi's Model BIT does not differ from its neighbours in defining investment.¹⁷⁹ Tanzania also defines investment in more or less the same terms, as can be found in the BITs it has signed with other countries, such as, Denmark,¹⁸⁰ Finland,¹⁸¹ and

¹⁷⁷ Agreement on Encouragement and Reciprocal Protection of Investments between the Republic of Kenya and _____ (2003) [online] Available at:

<http://www.unctad.org/sections/dite/ia/docs/Compendium/en/294%20volume%2012.pdf> Accessed 11/05/2009.

¹⁷⁸ Agreement between the Government of the Republic of Uganda and the Government of the Republic of _____ on the Reciprocal Promotion and Protection of Investments (2003) [online] Available at:

<http://www.unctad.org/sections/dite/ia/docs/Compendium/en/295%20volume%2012.pdf> Accessed 11/05/2009.

¹⁷⁹ See Article 4 of Accord Entre Le Gouvernement de la République du Burundi D'une Part, et le Gouvernement de _____, D'autre Part, Concernant L'encouragement Et La Protection Reciproques Des Investissements [online] Available at: <http://www.unctad.org/sections/dite/ia/docs/Compendium/en/236%20volume%209.pdf> Accessed 11/05/2009.

¹⁸⁰ Article 1 of the Agreement between the Government of the United Republic of Tanzania and the Government of the Kingdom of Denmark Concerning the Promotion and Reciprocal Protection of Investments (2002) [online] Available at: http://www.unctad.org/sections/dite/ia/docs/bits/denmark_tanzania.pdf Accessed 11/05/2009.

¹⁸¹ Article 1 of the Agreement between the Government of the Republic of Finland and the Government of United Republic of Tanzania on the Promotion and Protection of Investments (2002) [online] Available at: http://www.unctad.org/sections/dite/ia/docs/bits/finland_tanzania.pdf Accessed 11/05/2009.

Germany.¹⁸² Rwanda – USA BIT defines investment in almost similar terms albeit with less detail.¹⁸³ If the EAC is to have a single investment policy, it needs one investment code in which all the elements above will not only be included, but also and especially clearly defined.

4.1.2. Power Subsector

In Uganda, significant public investment has been injected into the energy sector, particularly in the area of electricity supply, which now attracts the largest private sector investments in the country. Consequently, the power subsector is now a vital input into other sectors, and a major source of employment for Ugandans. Moreover, in spite of liberalisation, the government is still making a number of strategic interventions to keep improving the power subsector. It is estimated that 68 percent of the resources needed to implement the interventions will come from direct private investment while 32 percent will be obtained from the public sector either through Government resources or from development partners.¹⁸⁴

The hydroelectric power potential of Uganda is high and estimated at over 2,000 MW, mainly along the River Nile. Current exploitation is about 317 MW, of which 300 MW is on the River Nile and generated by UEGCL. Kilembe Mines Ltd., Kasese Cobalt Company Ltd and others generate a total of 17 MW. Two major independent power producers, AES Nile Power and Norpak Power Company are in various stages of setting up large power plants. Their combined capacities will be 450 MW when completed.¹⁸⁵

Burundi, Congo and Rwanda jointly operate a 50 MW unit (Rusizi II) hydropower development project, with Burundi's share of the installed power being 13.3 MW. Burundi has a number of other projects including Mpanda, Kabu 16, Jiji 003 and Mule 34 expected to provide 10 MW, 20 MW, 15.5 MW and 16.5 MW, respectively.¹⁸⁶ Burundi, Rwanda and Tanzania also launched the international Rusumo Falls hydropower station (RFHS) project within the framework of the Nile Basin Initiative (NBI) to provide 60 MW to the region.

¹⁸² Article 8 of the Treaty between the Federal the Republic of Germany and the United Republic of Tanzania Concerning the Encouragement and Reciprocal Protection of Investments (1965) [online] Available at: http://www.unctad.org/sections/dite/ia/docs/bits/germany_tanzania_gr_eng.pdf Accessed 11/05/2009.

¹⁸³ Article 1 of the Treaty between the Government of the United States of America and the Government of the Republic of Rwanda Concerning the Encouragement and Reciprocal Protection of Investment (2008) [online] Available at: http://www.ustr.gov/assets/Trade_Agreements/BIT/Rwa/asset_upload_file743_14523.pdf Accessed 11/05/2009.

¹⁸⁴ GTZ Eastern Africa Energy (n 87 above)

¹⁸⁵ Uganda Energy Policy (2002) para 1.2.2

¹⁸⁶ Eastern Africa Business Council (n 26 above)

However, Rwanda continues to suffer deficiencies in the power subsector and to depend on its neighbours for additional supply. “In order to alleviate the acute power crisis Electrogaz has placed orders for the installation of a 12.8 MW diesel generator; another diesel power plant is in the project pipeline for financing under World Bank loans (2004).”¹⁸⁷ Moreover, the Rwandan government has signed an \$ 80 million deal with an international consortium, Dane Associates, to start exploiting the methane from the eastern shores of Lake Kivu for the generation of electricity of up to 200 MW, about four times Rwanda’s current installed capacity. However, in March 2007, the joint venture with Dane Associates was threatened by a dispute over “pre-project costs” the company sought to write off against its 70 percent equity share in Kibuye Power One (KP1), in which the government holds the other 30 percent. The KP1 dispute may hamper the vision of the government of Rwanda.¹⁸⁸

4.1.3. Petroleum Subsector

None of the EAC countries produces petroleum, though the prospects are high for production in the near future. For example, Kenya has four prospective petroleum basins and about 30 exploration wells that could have gas.¹⁸⁹ In Uganda, there is clear evidence of hydrocarbon generation capacity in the Rift valley basins. The prospective area for petroleum exploitation in the country is the Albertine Graben located in the Western Rift Valley area of Western Uganda.¹⁹⁰ The Ugandan government has made efforts to attract investment in petroleum exploration and production by acquiring geological and geophysical data in the graben. One exploration area has been licensed to a consortium of Heritage Oil and Gas Limited of the United Kingdom and Energy Africa of South Africa, and a Production Sharing Agreement (PSA) has been signed with the companies. Another exploration area was recently licensed to Hardman Resources N.L. of Australia and Energy Africa of South Africa, and the government continues to promote the other unlicensed areas.¹⁹¹ All these projects can only thrive and produce the desired fruits if they are run within a uniform legislative and regulatory framework.

¹⁸⁷ Eastern Africa Business Council (n 27 above)

¹⁸⁸ Ibid.

¹⁸⁹ GTZ Eastern Africa Energy ‘Energy Resource’ [Online] Available at: http://regionalenergy-net.com/index.php?option=com_content&task=view&id=146&Itemid=107&limit=1&limitstart=2 Accessed 17/01/2009.

¹⁹⁰ Uganda Energy Policy (2002) para 1.2.3

¹⁹¹ Ibid.

4.2. Problems Facing Energy Investments

A number of problems curtail investment in the energy sector. Most of these are problems of policy, but there are also other problems connected to investment treaties.

4.2.1. Energy Policies

In the EAC, it has been very difficult to attract private sector financing for energy investments mainly due to “poorly managed state-owned energy entities, faltering pricing policies, inadequate financial and institutional frameworks, and a lack of adequate legal and regulatory mechanisms”.¹⁹² These issues are somehow addressed in one or other of the energy policies. The individual country approach is however, weak and having these issues addressed in an EAC energy policy will go a long way to attract investors.

4.2.2. Bilateral and multilateral investment treaties

The EAC does not have a multilateral investment treaty with a focus on trade and investment in energy, or indeed on any sector. BITs or MOUs have mainly initiated investment in general in the EAC and energy is one of the commodities presumably covered. None of the Model BITs and the other examples of BITs quoted at the beginning of this Chapter mentions energy nor any other specific commodities. The BITs are general and cover all types of commodities; so are the MOUs. However, inadequate policy support, cumbersome bureaucratic procedures, high risks, and low return situations have accounted for the failure of most of the MOUs for energy projects signed since 1990 in developing countries.¹⁹³ It is, therefore, pertinent that developing countries formulate energy policies that will support investment, minimise risks, and all together attract investment in the energy sector.

The EAC could come up with a single regional investment treaty. This may not be difficult considering that Kenya, Uganda and Burundi already have such model BITs, and the BITs for Tanzania and Rwanda cover more or less the same issues.¹⁹⁴ The EAC could also have a regional investment treaty among its member states, so as to have a common approach to energy issues. A number of factors combine in varying degrees to make a cooperative approach toward the harnessing of resources (and, therefore, policies) for sustainable energy development in the

¹⁹² Gururaja (2005) 225

¹⁹³ Ibid.

¹⁹⁴ See n 160-164 above.

Community the preferred option.¹⁹⁵ These include the underdevelopment and uneven distribution of energy resources across the region; the landlocked position of Uganda, Rwanda and Burundi and the consequent difficulties of importing commercial energy; the poverty of the consumers and a small sized market; the poor development of commercial energy infrastructure; and the lack of skilled technical expertise in the region.

The guiding principles for investment regulation/liberalisation towards a regional investment agreement for the EAC can be similar to those of the OECD's multilateral agreement on investment (MAI), of which Amarasinha and Kokott¹⁹⁶ suggested the following:

- (1) Promoting a more secure, predictable, and transparent environment in which to plan and operate cross-border investments;
- (2) Ensuring greater protection for investors and their investments;
- (3) Promoting the progressive liberalization of barriers restricting the entry and conduct of foreign firms in domestic markets;
- (4) Reducing or eliminating measures that distort trade and investment decisions and reduce allocative efficiency; ...
- (5) Developing credible institutions and rules for solving potential disputes; ...
- (6) Ensuring adequate consideration for environmental issues, core labour standards and other related issues; and
- (7) Ensuring that the relationship between the agreement and other related international instruments is clarified.

The EAC can be guided by these principles. For a long time now, African countries have opposed a multilateral investment agreement, and indeed even the international community has consistently failed to realise one. Whether to negotiate a broad multilateral agreement was already a contentious issue during the Uruguay Round and much as there has been a growth of foreign investment and an expansion of international activities of corporations, the evolution of the law has not gone further and no generally accepted rules in the matter have crystallised on the international plane.¹⁹⁷

¹⁹⁵ Worika (2005) 359

¹⁹⁶ Amarasinha SD & J Kokott 'Multilateral Investment Rules Revisited' in Muchlinski P, F Ortino & C Schreuer (eds) *The Oxford handbook of international investment law* (2008) 135

¹⁹⁷ *Barcelona Traction Case*, (1970) ICJ Repts. 3.

However, it is necessary to consider seriously a regional investment agreement for the EAC, considering the fact that all EAC countries have BITs with other countries outside the Community and MOUs with member states. Moreover, a regional agreement would be in line with the aspiration towards a customs and later a monetary union. This regional agreement can apply to all sectors of the economy.

By providing greater predictability, transparency and legal security for investors, a regional investment agreement will attract more FDI, even to those countries that currently receive little. FDI helps the EAC not only to bring capital, but also to provide additional benefits, such as, more jobs and the transfer of sophisticated technology. Policy coherence is necessary, as is the case for NAFTA, so that uncertainties, confusions and conflicts are avoided.¹⁹⁸ National legislation seems to be so vast and, therefore, does not provide a solution to the many BITs.

In addition, FDI by itself is a major factor in providing sustainable development and a regional investment agreement would be better for developing countries than negotiating bilateral treaties with rich nations because they can use their collective power more effectively to gain better terms.¹⁹⁹ Moreover, the regional agreement may be the only way for EAC countries to avoid competing among each other for FDI, and to avoid marginalising the non-signatories to the BITs.²⁰⁰ The regional agreement is not likely to affect the existing BITs since it will most probably have the same terms and conditions. Moreover, there are already some agreements between the EAC as a single body or as a member of COMESA, and other countries, such as, the USA.²⁰¹ Such agreements can work as frameworks for drafting a regional (trade and) investment agreement.

On the other hand, there are arguments against a regional investment agreement that must not be overlooked. EAC countries seem to front their sovereignty and autonomy over regional commitments. Member states, therefore, may still want to retain their investment plans. It has

¹⁹⁸ Drabek, Z A *Multilateral Agreement on Investment: Convincing the Sceptics* (1998) 5.

¹⁹⁹ Lobe, J 'NGOs organize against proposed WTO investment agreement' (2003) [Online] Available at: <http://www.commondreams.org/cgi-bin/print.cgi?file=/headlines03/0623-02.htm> Accessed 30/09/2008.

²⁰⁰ Drabek (1998) 5.

²⁰¹ See for example Agreement between the Government of the United States of America and the Common Market For Eastern And Southern Africa Concerning the Development of Trade and Investment Relations (2001) [Online] Available at: http://www.ustr.gov/assets/Trade_Agreements/TIFA/asset_upload_file367_7725.pdf Accessed 11/05/2009; and the Trade and Investment Framework Agreement between the East African Community and the Government of the United States of America (2008) [Online] Available at: http://www.ustr.gov/assets/Trade_Agreements/TIFA/asset_upload_file413_15020.pdf Accessed 11/05/2009.

been argued²⁰² that African countries believe that a multilateral investment agreement would sharply restrict the ability of governments to shape investment policy to promote social, economic and environmental goals. The EAC regional investment agreement might be viewed as an attempt to create rights for foreign investors and to defend these rights even when they are in conflict with the rights, needs or interests of individual nations and their citizens. On the other hand, the regional agreement is not likely to impose binding obligations on investors with respect to labour rights, environmental standards, or anti-competitive business practices,²⁰³ unless EAC member states specifically target the inclusion of these issues.

4.3. Improving Investment in the Energy Sector

In the recent years (from about 2002 to 2008), all the countries in the EAC have experienced unprecedented electricity deficits, due to prolonged drought for at least Kenya, Tanzania, and Uganda; and inadequate investment in generation capacity and a relatively high load growth for all. The problems caused massive electricity rationing, and forced the countries to resort to expensive alternatives of, for example, thermal generation (Uganda and Kenya), or generators (Rwanda). The governments are trying to have comprehensive plans to address energy deficits and meet the long-term energy needs.²⁰⁴

EAC member states individually and jointly plan to enhance public-private partnerships in power generation and supply. Specifically Tanzania's Energy Policy suggests having an opening for strategic partnerships with technically suitable and financially strong investors, in the energy sector, as a step in the development of a competitive market within generation and distribution.²⁰⁵

EAC member states further intend to enhance financial sustainability of the power sector and increase inter-regional power trade. The strategies to this effect include energy loss reduction, investing in alternative sources of energy through the development of renewable energy generation projects, energy efficiency/demand side management. For Uganda, for example, the

²⁰² Sforza-Roderick, M, S Nova & M Weisbrot 'A concise guide to the multilateral agreement on investment supporters' and opponents' views' [Online]. Available at: <http://www.globalpolicy.org/socecon/bwi-wto/maimia/guide.htm> Accessed 30/08/2008.

²⁰³ Ibid.

²⁰⁴ See GTZ Eastern Africa Energy 'Energy Resource' [Online] Available at: http://regionalenergy-net.com/index.php?option=com_content&task=view&id=146&Itemid=107&limit=1&limitstart=5 Accessed 17/01/2009

²⁰⁵ Tanzania National Energy Policy (2003) para 3.2.1

long term measures include development of four large hydro power sites, use of indigenous petroleum resources for thermal generation; interconnection of the regional power grid; and the use of geothermal, peat and other renewable sources of energy.²⁰⁶

The Tanzanian National Energy Policy and in similar terms the Rwandan Energy Policy acknowledge that the “opportunities for investment in the energy sector are vast in monetary terms, and substantial in terms of economic development impact”.²⁰⁷ Both Policies then mention that the reforms taking place in the energy sector, such as, the liberalisation of power generation, trade in petroleum products, and emphasis on enhancing rural energy supplies, are bound to increase private investment substantially. They also recommend, “Public and private sector partnerships should be encouraged to invest in provision of energy services”.²⁰⁸ Tanzania’s Energy Policy clearly outlines the policy statements to effect the recommendations above. These are first, the promotion of private initiatives at all appropriate levels and the making of local and foreign investors aware of the potentials within the energy sector. Second, the policy recommends ensuring “that a transparent and predictable institutional framework, including incentives, is in place to provide for an enabling environment for investment in the energy sector”.²⁰⁹

The main issues that must be taken into consideration by EAC countries when considering investment in the energy sector are briefly discussed hereunder.

4.3.1. Control of Entry

A state may exclude entry of any foreign investment, and EAC member states may use this right if they so wish. This right is unlimited as it is a right that flows from sovereignty;²¹⁰ it may, however, be used with more discretion where a BIT exists. Thus in Kenya’s Model BIT Article 8 requires each contracting party to ‘give sympathetic consideration’ to applications for the entry of investors, and Article 3 of Uganda’s Model BIT requires contracting parties to ‘favorably examine requests for entry’ of investors.

²⁰⁶ GTZ Eastern Africa Energy (n 204 above)

²⁰⁷ National Energy Policy (2003) paragraph 5.5, and GTZ Eastern Africa Energy (n 56 above)

²⁰⁸ Ibid.

²⁰⁹ Ibid.

²¹⁰ Sornarajah M (1994) *The International Law on Foreign Investment* 83

The unlimited right of the state to control entry by an alien was recognised by the Privy Council thus:²¹¹

One of the rights possessed by the supreme power in every state is the right to refuse to permit the alien to enter that state, to annexe what conditions it pleases to the permission to enter it and to expel or deport from the state, at pleasure, even a friendly alien, especially if it considers his presence in the state opposed to its peace, order and good government, or to its social or material interests.

Moreover, once an alien enters a state, both the alien and the alien's property are subject to the law of the host state.²¹²

4.3.2. Screening of foreign investment entry

Similarly, EAC countries may institute measures to keep out foreign investment that is considered harmful to their interests, since it is agreed that “[n]o state maintains an entirely open door policy to all foreign investments”.²¹³ It is not clear whether any of the EAC member states has a clear policy on this. What is known, however, is that the investment authorities of each country consider the nature of investment and investor before granting an investment licence.²¹⁴

4.3.3. Requirements of local collaboration

Instead of having foreign investors come and start an investment on their own, EAC countries should opt for collaborative joint ventures as the method for foreign investment entry. “The preference for joint ventures comes about for various reasons such as the need to pool resources and technology or the need to diversify the risks of failure involved in the venture.”²¹⁵ With a joint venture, the investment will benefit from the technology, expertise and capital of the foreigner, and at the same time gain the local skill and knowledge of the national situation and legal framework.

²¹¹ In *AG for Canada v Cain* [1906] AC 542 at p. 546. See also *Schmidt v Secretary of State for Home Affairs* [1969] 2 Ch 149 at p. 168 where Lord Denning said: “At common law, no alien has any right to enter this country except by leave of the Crown; and the Crown can refuse leave without giving any reason”. Quoted in Sornarajah (1994) 83-84.

²¹² Sornarajah (1994) 83

²¹³ *Ibid.* 100

²¹⁴ See, for example, Uganda Investment Authority ‘Uganda: Your Investment Location’ [online] Available at: http://www.unido-aaitpc.org/unido-aaitpc/new1/uganda/Uganda%20Engl%20Investment%20Climate%202006_7.pdf Accessed 11/05/2009.

²¹⁵ Sornarajah (1994) 104

4.3.4. Requirements relating to local equity

Where there is no joint venture, EAC countries can still require that there is local equity participation in foreign investments. Thus, there must be a percentage of local shareholding in the foreign investment.²¹⁶ This has the advantage of continuity, among others, in case the foreign investors leave the country. Accordingly, Article 2.2 of Kenya's Model BIT is to the effect that each party should encourage the use of local resources both human and material for the promotion of investment.

4.3.5. Capitalisation requirements

It is advisable that EAC countries require that a foreign investor bring in all the capital or a certain percentage of it from overseas. This is intended to prevent the foreign investor from raising capital on the local markets, so as not to divert local savings to his interests.²¹⁷ Neither the model BITs nor the specific countries' BITs have this requirement, and it would be beneficial to include it in the regional investment agreement or investment code.

4.3.6. Requirements relating to environmental protection

If not watched, multinational corporations could export hazardous technology, the use of which will not be permitted in their home states, and that they may cut costs in developing countries by not including environmental measures that they would have been forced to use in their home states. Accordingly, feasibility studies requiring that an assessment be made of the environmental impact of the investment need to be made prior to permission for the entry of the foreign investment usually. If the effects on the environment would be adverse, permission should be denied.²¹⁸

None of the three model BITs (for Kenya, Burundi and Uganda) nor the specific BITs for Tanzania mention this requirement. Nonetheless, the requirement for environmental protection is strongly spelt out in the USA – Rwanda BIT.²¹⁹ It is pertinent that the regional investment agreement requires the protection of the environment.

²¹⁶ Sornarajah (1994) 111

²¹⁷ Ibid. 106

²¹⁸ Ibid. 107

²¹⁹ See Article 12 of the USA – Rwanda BIT.

4.3.7. Requirements relating to export targets

Like many other developing countries, such as, Singapore, South Korea, Taiwan and Hong Kong, EAC countries should prefer investors who would manufacture and export products from the host country and thus earn foreign exchange.²²⁰ This is opposed to the current state of affairs where, for example, according to Kenya's Model BIT, each contracting party is required not to impose on the investments of investors of the other party conditions, which require the export of goods produced, or purchase of goods or services locally.²²¹ Likewise, Article 8 of the USA – Rwanda BIT²²² requires that the contracting parties do not impose any requirement to export a given level or percentage of goods or services. None of the other EAC BITs considered has a similar provision, and it is suggested that it is included in the regional investment agreement.

4.3.8. Foreign Investment Guarantees

To make investment more attractive, EAC countries need to provide guarantees to foreign investors, and they are actually already doing so. These include: compensation in the event of expropriation of the foreign investment and repatriation of the payments made; repatriation of the proceeds upon the sale of the investment; repatriation of profits and dividends; repatriation of other forms of current income, such as, royalties and fees; repatriation of the principal and interest from loans; stabilisation of taxes and other regulations; and convertibility of local currency.²²³ Each of the EAC member states provide for more or less all these guarantees in the model BITs,²²⁴ specific BITs,²²⁵ and even through membership to the Multilateral Investment Guarantee Agency (MIGA).²²⁶ What is not assured, nevertheless, are the four underlying factors that are at the root of the guarantees, and that are core to having investor confidence. These are: first, the tariff and collection policies should ensure adequate cash flow; second, laws should be stable and contracts should be enforceable; third, there should be efficiency in administration and processing time; finally, there should be minimum government interference in energy service

²²⁰ Sornarajah (1994) 109

²²¹ Article 7 of Kenya's Model BIT.

²²² See n 166 above.

²²³ August R (2000) *International Business Law: Text, Cases, and Readings* 265

²²⁴ See, for example, Articles 5 and 6 of Kenya's and Uganda's Model BITs.

²²⁵ See, for example, Articles 5 and 6 of the Agreement between the Government of the United Republic of Tanzania and the Government of the Italian Republic on the Promotion and Protection of Investments (2002) [online] Available at: http://www.unctad.org/sections/dite/ia/docs/bits/italy_tanzania.pdf Accessed 11/05/2009.

²²⁶ All EAC countries are member states to MIGA. See MIGA 'Regional Overview' [online] Available at: www.miga.org/region/index_sv.cfm?stid=1530 Accessed 15/05/2009

delivery.²²⁷ Even without explicit mention in the investment agreements, the investment policy for the EAC should promote these requirements.

4.3.9. Standards of treatment

Foreign investors would expect the application of the principles of non-discrimination, fair and equitable treatment, and full protection and security. The principle of non-discrimination consists of two main elements. The first is the most favoured nation (MFN) standard, which “ensures that investors and investments from one country are treated in the same, or no less favourable, manner than like investors/investments from other countries”.²²⁸ The second element is “the national treatment standard, which ensures that investors and investments from outside the host country are treated in the same, or no less favourable, manner than like investors/investments from inside the host country”.²²⁹ With these principles in place, foreign investors and investments are guaranteed at least equality of competitive conditions with other investors/investments in similar situations.

Fair and equitable treatment is an unconditional standard that does not depend on the existence of other investors/investments.²³⁰ Finally, the investment agreements should also contain provisions on the compensation of the investor for losses due to armed conflict or internal disorder. In practice, the scope of the host country’s responsibility for such losses is determined by reference to a ‘due diligence’ standard.²³¹ Accordingly, the ICSID Tribunal in *AMT v Zaire*²³² noted that the host country is bound to observe an obligation of vigilance in protecting the property of the investor.²³³ The standards of treatment just discussed, are also guaranteed in the various EAC

²²⁷ Miller AS ‘Financing Clean Energy for Development’ in Bradbrook AJ, R Lyster, RL Ottinger & W Xi (eds) *The law of energy for sustainable development* (2005) 478 quoting a World Bank Report (2003)

²²⁸ Muchlinski P ‘Policy Issues’ in Muchlinski P, F Ortino & C Schreuer (eds) *The Oxford handbook of international investment law* (2008) 22

²²⁹ Ibid.

²³⁰ Ibid. 23

²³¹ *Asian Agricultural Products Ltd v Republic of Sri Lanka*, ICSID Case No. ARB/87/3 award of 27 June 1990; and *Wena Hotels v Egypt* ICSID Case No. ARB/98/4 award of 8 December 2000 available at <http://www.worldbank.org/icsid/cases> or 41 ILM 896 (2002) at para 84.

²³² ICSID Case No. ARB/93/1 award of 21 February 1997, available at <http://www.worldbank.org/icsid/cases> or 36 ILM 1531 (1997) at para 6.05. In *Wena Hotels v Egypt*, *ibid*, the seizure of the Claimant’s two hotels by the Egyptian partner in the investment, was seen to violate the full protection and security standards as Egypt had failed to discharge its duty of vigilance and due diligence in protecting the hotels, despite knowledge of the intention to seize them, and by subsequently failing to restore them to their owners with suitable reparations (paras 85-95).

²³³ Muchlinski (2008) 26

BITs,²³⁴ and the provisions may only need to be consolidated when put in a regional investment agreement.

4.3.10. Tax and non-tax incentives to foreign investors

Uganda uses temporary incentives to attract investment in energy resources.²³⁵ Such incentives normally take the form of tax reductions or removals for a period of years, provision of land for investment, reduced fees on licences, etc.²³⁶ Other EAC countries also have related incentives, though apparently not as strong as Uganda. Nonetheless, there have been many complaints from local investors and businesspersons against this policy towards investors. Local investors feel that the government favours foreign investors more than local investors.²³⁷ It should be noted that all private entrepreneurs need to be stimulated in order to address supply and demand.

These tax holidays and other incentives should be available only to investors who fall into specified categories, such as, those who bring in high technology or who locate their regional headquarters in one of the EAC countries. To increase the level of demand, tax incentive on end use equipment and appliances in order to encourage their adoption may work best.²³⁸ On the supply side, governments “must provide tax incentives to financiers of energy efficient projects as well as importers and manufacturers of energy efficient and renewable energy equipment”.²³⁹

4.3.11. Regulatory Framework

The characteristic features of the energy industry require a dynamic and efficient regulatory system, which sets out the goals of the energy investment, and the accompanying rules and principles for the implementation of the goals. These are prerequisites to attracting investment in the energy sector,²⁴⁰ which is one of the major ways of ensuring access to energy. The need to attract and retain private investment is fundamental. “It is the only sustainable source of financing and the only source commensurate with investment needs where market conditions

²³⁴ See, for example, the USA – Rwanda BIT: Article 3 on National Treatment; Article 4 on MFN; and Article 5 on Minimum Standard of Treatment.

²³⁵ See Part IV of the Investment Code Act Cap. 92

²³⁶ Uganda Investment Authority (n 197 above)

²³⁷ Buwembo J ‘Love your neighbour, yes, but don’t sell off your oil reserves’ (2008) *The East African* 14

²³⁸ Tanzania’s National Energy Policy (2003) para 3.1.4

²³⁹ Worika (2005) 369

²⁴⁰ In the energy industry, “investment risks are very high and the venture capital intensive, with very long gestation periods,” this is because, for oil and gas, “the challenging geological environment coupled with water depth make offshore oil and gas exploration and development particularly expensive. Investments that go into generating, transmitting, and distributing thermal, hydro, or gas powered electricity is equally expensive.” (Worika (2005) 365)

exist.”²⁴¹ The current regulatory framework for the EAC with both its strengths and weaknesses has been discussed in Chapter Two. It is proposed that this framework be harmonised across the region.

4.3.12. Some other requirements

EAC countries could adopt a number of other requirements in order to maximise the benefits of the foreign investment to the local economy. These requirements may relate to the level of employment of local staff, to the respect of domestic labour laws,²⁴² to local research and adaptation of the products to local conditions, to local processing of raw materials, among others.²⁴³ Such requirements will benefit EAC countries and they should be included in the regional investment agreement and investment policy. Relating to energy, investment in the EAC should focus on renewable and alternative sources of energy as deserving special investor attention.

4.4. The Settlement of Foreign Investment Disputes

Most disputes are incidental to the normal carrying out of business operations, though most conflicts arise on disputes arising from acts of deprivation of wealth by the host state against foreign investors. Normally, disputes should be settled according to the agreement of the parties or of the host state and home state in a BIT, which method may include national courts or arbitration tribunals. When this is not the case, the parties may resort to diplomatic protection, or international commercial arbitration²⁴⁴ before the International Centre for Settlement of Investment Disputes (ICSID), the International Chamber of Commerce (ICC), or the United Nations Commission on Trade Law (UNCITRAL), among others.

For example, all five EAC member states are signatories to the Convention on the Settlement of Investment Disputes between States and Nationals of Other States (ICSID Convention 1965), and in their various BITs they acknowledge its jurisdiction.²⁴⁵ Accordingly, where both States are contracting parties to ICSID, Article 42(1) of ICSID Convention provides that:

²⁴¹ Miller (2005) 477

²⁴² See, for example, Article 13 of the USA – Rwanda BIT.

²⁴³ Sornarajah (1994) 113

²⁴⁴ Sacerdoti G ‘Bilateral treaties and multilateral instruments on investment protection’ (1997) 269 *Recueil des Cours* 412

²⁴⁵ See, for example, Article 24.3 of the USA – Rwanda BIT; Article 9(2)(a) of the Tanzania – Denmark BIT; Article 9.4 of Uganda’s Model BIT; and Article 10(b) of Kenya’s Model BIT.

The Tribunal shall decide a dispute in accordance with such rules of law as may be agreed by the parties. In the absence of such agreement, the Tribunal shall apply the law of the Contracting State party to the dispute (including its rules on the conflict laws) and such rules of international law as may be applicable.

Similarly, in cases where one of the parties to the investment dispute is not a party to ICSID, Article 54(1) of ICSID Additional Facility Rules provides that:

The Tribunal shall apply the rules of law designated by the parties as applicable to the substance of the dispute. Failing such designation by the parties, the Tribunal shall apply (a) the law determined by the conflict of laws rules which it considers applicable and (b) such rules of international law as the Tribunal considers applicable.

ICSID is only resorted to in case of a dispute between a contracting party and a national of another contracting party, but not between contracting parties or states, where diplomatic channels,²⁴⁶ negotiations or an arbitral tribunal may be used. However, even in cases of disputes between a contracting party and a national of another contracting party, EAC BITs suggest to begin first with amicable settlement,²⁴⁷ consultations and negotiations.²⁴⁸

4.5. Renewable and Alternative Sources of Energy

Energy investments in the EAC will be very significant and feasible in renewable energy sources. Renewable energy resources include solar and wind energy, biomass, geothermal energy, and hydroelectric power. When properly used, renewable energy sources supplement and conserve other major sources of energy and since they are renewable, “these sources of energy have the potential to contribute to social, economic and environmental dimensions of sustainable development”.²⁴⁹

Renewable energy is an indispensable part of attaining access to sustainable energy. To the developed countries, using renewable energy is a necessity if the negative effects of fossil fuels are to be curbed. To the developing countries, however, renewable energy sources are a cheaper way to achieve access to sustainable energy. Consequently, each EAC member state has a policy on renewable energy sources, which is more or less similar to that of others. For example, both

²⁴⁶ See, for example, Article 11.1 of Uganda’s Model BIT.

²⁴⁷ See, for example Article 9(1) of the Tanzania – Denmark BIT

²⁴⁸ See, for example, Article 10(a) of Kenya’s Model BIT and Article 23 of the USA – Rwanda BIT.

²⁴⁹ GTZ Eastern Africa Energy (n 189 above)

the National Energy Policy of Tanzania and the Rwandan Energy Policy in exactly similar words talk of the need “to facilitate and encourage investment in the development of alternative sources of energy, putting emphasis on the utilisation of indigenous (local) resources”.²⁵⁰ However, there is also an admission of ignorance as regards renewable energy sources. For example, the East African Business Council clearly indicates that the field of renewable energy is ‘widely unknown’ in Burundi.²⁵¹ Tanzania’s Energy policy also notes that there is “a low level of awareness and understanding of available practices, technologies and resources, thus contributing to reluctance towards utilisation of renewable energy”.²⁵² This is most probably the main reason why there is hardly any specific legislation on renewable energy in the EAC, and there are no funds allocated for this purpose.

As Worika puts it:²⁵³

The absence of authoritative legal instruments establishing a framework for managing the various forms of renewable energy, regulating the rights and obligations of both host country and private investors, and imposing legally enforceable standards and obligations demonstrates the low prioritization of sustainable energy issues in most African countries. If indeed these forms of energy are to be harnessed and utilized in Africa, positive legislative measures for the promotion of renewable energy must be implemented.

The discussion below concerns the state of renewable energy sources in the EAC.

4.5.1. Solar Energy

Each EAC member state has a potential for generating solar energy due to the constant sunshine the region receives. Burundi, for instance, has an estimated insolation of about 4-5 Wh/m²/day. There is also a large potential for photovoltaic (PV) electricity generation in rural parts of Burundi, though there is almost no solar PV application up to now in rural areas, with an exception of the UNESCO funded Gasezerwa health centre project.²⁵⁴ Kenya has limited use of solar power but “a series of rural electrification and other programs has resulted in the

²⁵⁰ National Energy Policy (2003) para 5.5 and GTZ Eastern Africa Energy (n 56 above)

²⁵¹ Eastern Africa Business Council (n 26 above)

²⁵² Tanzania National Energy Policy (2003) para 3.2.4

²⁵³ Worika (2005) 365

²⁵⁴ Eastern Africa Business Council (n 26 above)

installation of more than 20,000 small-scale PV systems since 1986. These PV systems now play a prominent role in decentralised, sustainable electrification”.²⁵⁵

In addition, Uganda is endowed with plenty of sunshine giving solar radiation of about 4-5 kWh/m²/day, an insulation level that is quite favourable for all solar technology applications. Solar energy applications in Uganda include solar photovoltaic systems, which are generally required for applications where modest power needs exist mainly in areas that are not served by the grid. The technology also provides energy services to very inaccessible areas, such as, islands and mountainous areas.²⁵⁶

Similarly, the energy development plan for Rwanda holds the solar alternative high in its agenda. The program calls for the repair and implementation of a large group of photovoltaic solar plants, and the education and promotion of solar energy to the public.²⁵⁷ Rwanda has a high insulation of 5.15 kWh/m²/day, and the Head Office of DGE, Rwanda’s Energy Department actively promotes solar energy use, by for instance publishing practical handbooks for PV installations and supporting the implementation of PV plants, which supply families, medical centres, schools, NGOs, FM radios, subscribers to the telephone network, and pumping stations. Furthermore, while various small companies import products (batteries, modules, cables, regulators) that are necessary for the implementation of PV plants, the Ministry very often trains the actors in the industry. Correspondingly, several projects are under way at DGE for a continued promotion and implementation of PV systems (solar power supply kits, medical power supply) in the framework of rural electrification.²⁵⁸

Solar rural electrification would be the best way to provide efficient and sustainable energy to the majority of East Africans. Governments need to find a financing mechanism whereby both PV consumers and vendors can obtain credit from banks for developing their solar system. So far, no negative effects of using solar energy have been presented. This is, therefore, the best available alternative.

²⁵⁵ Worika (2005) 369 n 221

²⁵⁶ Uganda Energy Policy (2002) paragraph 1.2.4

²⁵⁷ East African Business Council (n 143 above)

²⁵⁸ Ibid.

4.5.2. Biomass

Biomass is the main source of energy especially for rural industries in the EAC. EAC countries have immense forest and agricultural resources as well as agricultural residues that are a potential source of energy. Wood and peat, for example, account for 94 percent of energy consumption in Burundi. Peat offers an alternative to increasingly scarce firewood and charcoal as a domestic energy source, and the government is actually promoting peat production.²⁵⁹

In Uganda too, biomass is predominantly used at the household level and in the commercial and industrial sectors. Trading in biomass energy, especially charcoal, contributes to the Ugandan economy in terms of rural incomes, tax revenue and employment. It saves foreign exchange, employs 20,000 people and generates approximately US\$ 20 million per year in rural incomes.²⁶⁰ The high usage of biomass has been attributed to the high prices of petroleum products, the limited, inadequate and inefficient power supply systems arising from stunted generation capacity growth, and a poor transmission and distribution infrastructure.²⁶¹ Uganda's estimated potential is 460 million tonnes of biomass standing stock with a sustainable annual yield of 50 million tons, and about 250 Mtoe of peat.²⁶² Biomass constitutes over 90 percent of total energy consumption in Uganda.²⁶³ For Kenya as well, biomass is one of its major energy supply sources. "Biomass resources account for 68 percent of primary energy consumption and 90 percent of energy consumption of rural households."²⁶⁴ Like other EAC countries, Kenya "has the potential for generation of electricity from biomass sources generated from agricultural wastes from the sugar cane (bagasse), sisal, timber (saw dust) and meat industries".²⁶⁵ In Tanzania, biomass represents more than 90 percent of the total energy consumption, more than 80 percent of which is consumed in rural areas.²⁶⁶ In Rwanda, biomass accounts for 93 percent of total energy consumption.²⁶⁷

Unfortunately, charcoal production in the region is obtained unsustainably from communal woodlands, rangelands and forests, or when forests are cleared for agriculture or other

²⁵⁹ Eastern Africa Business Council (n 26 above)

²⁶⁰ Uganda Energy Policy (2002) para 1.2.4

²⁶¹ GTZ Eastern Africa Energy (n 204 above)

²⁶² Ibid.

²⁶³ Uganda Energy Policy (2002) para 1.2.4

²⁶⁴ GTZ Eastern Africa Energy (n 49 above)

²⁶⁵ GTZ Eastern Africa Energy (n 189 above)

²⁶⁶ Arvidson A & M Nordström (n 31 above)

²⁶⁷ Eastern Africa Business Council (n 27 above)

purposes.²⁶⁸ Thus, fuel wood requirements have contributed to the degradation of forests as wood reserves are depleted at a rapid rate in many regions. Moreover, most of the traditional energy technologies (wood and charcoal stoves and charcoal production kilns) currently used in the EAC are inefficient. Charcoal is produced using “earth kilns whose efficiencies range between 10–13 percent yet higher recoveries of between 30-40 percent have been achieved using brick kilns”.²⁶⁹ Use of charcoal should either be discouraged or at least regulated all over the EAC.

Several initiatives to conserve biomass resources and promote efficient biomass conversion and end use technologies in order to save resources are being undertaken by governments and the private sector, including NGOs. These efforts are nevertheless uncoordinated and they may not be, therefore, very productive in contributing towards sustainable energy. In Uganda, for instance, improved stoves and forestation are being promoted, but the impact of these efforts is still limited.²⁷⁰ The government of Rwanda has identified unused biomass potentials, such as, briquette production from papyrus, estimated at 75 ktOE production at a cost competitive to charcoal with an estimated yield of 16t/ha.²⁷¹ Moreover, with Africa’s share of world carbon emissions still as low as 3 percent, East Africa can still develop the conventional energy resources but in a sustainable manner for the benefit of present and future generations.²⁷²

4.5.3. Wind Energy

EAC countries do not extensively use wind power but for some windmills. However, in Kenya, medium sized wind generators are operating in Marsabit town and on Ngong Hills.²⁷³ No other country seems to generate wind power probably due to the height (10 metres) needed for the generation. This is an area for further research.

4.5.4. Hydro Electric/ Mini-Hydro Electric

Hydropower provides about 99 percent of the Burundi’s utility power supply. The resource however is not yet fully exploited and there is, considerable potential for further development,

²⁶⁸ GTZ Eastern Africa Energy (n 189 above)

²⁶⁹ Ibid.

²⁷⁰ Uganda Energy Policy (2002) para 1.2.4

²⁷¹ East African Business Council (n 143 above)

²⁷² Worika (2005) 324

²⁷³ GTZ Eastern Africa Energy (n 189 above)

including micro-, mini and small hydropower.²⁷⁴ Uganda too has numerous mini- and micro-hydropower sites, which can be developed to supply isolated areas or feed into the national grid.²⁷⁵ Kenya also has considerable potential for the development of small-scale hydro, estimated at around 3,000 MW.²⁷⁶

Unlike large-scale hydro-projects, small-scale hydro is more environmentally friendly and suitable in remote off grid areas. There is need for the EAC to promote this energy source, especially as it can work as a better alternative to biomass. Thus, Rwanda's Ministry of Energy (MINERENA) has put in place an energy development plan that specifically intends to reduce the country's wood consumption by setting up micro hydroelectric plants to provide an efficient and abundant alternative to wood.²⁷⁷ Accordingly, numerous micro hydroelectric power plants, with micro distribution networks of less than 100 kW have been set up in Rwanda. DGE has identified and quantified a number of sites that can be restored or equipped. It has also setting up a training project for technicians,²⁷⁸ a move that the rest of the EAC should emulate.

4.5.5. Geothermal Energy

Geothermal resources exist in the Rift Valley region in Western Uganda at an estimated potential of 450 MW, and there are several geothermal indicators in Burundi, though nothing has so far been done to assess their commercial viability.²⁷⁹ Kenya takes the lead in the development of geothermal resources in the region. Such development is guided by legislated environmental controls as shall be seen in the next Chapter.²⁸⁰ As part of its support to Uganda, the World Bank is currently developing a series of projects and technical support in thermal generation for the short-term and hydropower for the medium- to long-term, and in the revitalisation of Uganda's power distribution system. The promotion of geothermal energy development and exploration is necessary since geothermal energy can be utilised to supply base-load electricity and provision of direct heat.²⁸¹

²⁷⁴ Eastern Africa Business Council (n 26 above)

²⁷⁵ Uganda Energy Policy (2002) para 1.2.4

²⁷⁶ GTZ Eastern Africa Energy (n 189 above)

²⁷⁷ East African Business Council (n 27 above)

²⁷⁸ Ibid.

²⁷⁹ Eastern Africa Business Council (n 26 above)

²⁸⁰ Worika (2005) 369 n 221

²⁸¹ Uganda Energy Policy (2002) para 4.2.3

In Rwanda, the energy development plan instituted by MINERENA calls for the implementation of geothermal energy as another natural alternative to wood. Several geothermal indicators exist though exploration efforts to verify the feasibility of geothermal energy extraction are still due. Three sites, Gisenyi, Kibuye and Cyangugu with underground temperatures of 150° C are considered to be potentially favourable for a medium and large geothermal power plant.²⁸² Although the scale of geothermal energy is not as great as hydroelectricity in Rwanda, the energy development plan holds the geothermal alternative high in its agenda. The program calls for the building of a brand new geothermal power plant, and the education and promotion of geothermal energy to the public.²⁸³ With regional efforts, geothermal energy can also be a major investment area in the EAC which needs to be pursued.

4.5.6. Caution

Caution should be taken when promoting renewable energy, as it has its challenges as well. Renewable energy sources, particularly wind and solar provide an irregular supply of electricity that may or may not match demand. On the other hand, biofuels can cause considerable pollution; wind farms damage amenity and affect birdlife habitat; and hydro dams affect rivers and lakes.²⁸⁴ These sources, therefore, should be promoted and used with a lot of precaution.

4.6. Strategies for Renewable Energy Use

In its energy policy, the EAC can adopt a number of strategies to develop the use of renewable energy resources for both small and large-scale applications. These include facilitating adequate financing schemes for Renewable Energy Technologies (RETs) by establishing sustainable financing mechanisms to make them more accessible. Governments should also ensure that RET producers and importers ascribe to certified performance and technical standards. Similarly, biomass resources need to be developed only in compliance with the forestry and environmental policies. “Biomass, particularly wood fuel should be conserved through efficient conversion and end use technologies which could be complemented by tree growing at household level and beyond.”²⁸⁵

²⁸² East African Business Council (n 143 above)

²⁸³ Ibid.

²⁸⁴ Barton (2005) 449

²⁸⁵ Tanzania National Energy Policy (2003) para 3.2.4

In addition, it is important to include renewable energy and energy efficiency in the curricula of schools and other education institutions,²⁸⁶ as well as support R&D in RETs. Furthermore, there is need “to promote efficient conversion and end use energy technologies and practices in order to minimise health hazards primarily affecting women and children, and environmental degradation”.²⁸⁷ It is also necessary to establish an institutional framework with conceptual, administrative and financial resources to mobilise, co-ordinate and guide the development of renewable energies. The institutional framework will need a legal backing and mechanisms to establish standards, guidelines and codes of practice and norms for safe use of environmentally friendly renewable energy technologies. There is thus a need to create a legal framework for renewable energy development. Together with the legal framework, it is necessary to establish norms, codes of practice, guidelines and standards for RETs, to facilitate the creation of an enabling environment for sustainable development of renewable energy sources.²⁸⁸

Finally, in all renewable energy planning and implementation, the EAC should ensure inclusion of health, safety and environmental considerations, so that the renewable energy is sustainable. There are multiple links between energy and the environment. Excessive use of wood fuel for instance leads to damage of catchment areas from deforestation, and soil, water and wind erosion. Some of these effects in turn cause reduced river channels, and silting of the rivers with follow-on effects on hydropower development and use.²⁸⁹ For EAC economies to become more competitive and dynamic, more reliable, affordable and sustainable energy is critical. “This will require among others, judicious management of the country’s environment and natural resources,”²⁹⁰ and considerable finances should be set aside for achieving sustainable energy.

4.7. Financing Renewable Energy

With the poverty situation in the EAC, the development of renewable energy sources may not succeed without financial subsidies, tax rebates, low or no interest loans, preferential prices, credit guarantees and other economic incentives provided by the government. Financial subsidies may be given to institutions for R&D; they may be for the purchase of technology; for investment; or for specific projects. The government may apply a favourable tax policy by

²⁸⁶ Uganda Energy Policy (2002) para 4.2.3

²⁸⁷ Tanzania National Energy Policy (2003) para 3.2.4

²⁸⁸ Ibid.

²⁸⁹ UNEP (n 29 above)

²⁹⁰ Ibid.

granting preferential tariff treatment and preferential tax treatment for fixed assets or in relation to value added tax and income tax. The preferential tax treatment may include tax reductions or exemptions. Compulsory tax policies, such as, levies for garbage may also be imposed.²⁹¹

In addition, the governments can provide certain amounts of capital to developers of renewable energy resources in the form of low or no interest loans. These “loans have specific target projects, objectives, amount restrictions, conditions, and a specified scale. They can be implemented by financial organisations consigned by the government or by an authorised government agency”.²⁹² Moreover, the countries may allow renewable energy products to be preferentially or favourably priced in order to be competitive on the market. Finally, the EAC governments “can provide credit guarantees to banks for developers of renewable energy sources”.²⁹³

In conclusion, it is necessary to properly and carefully plan for the development of renewable energy resources. At the same time, institutional arrangements should be made so that a specific department takes the responsibility of this development.²⁹⁴

4.8. Conclusion

It cannot be overemphasised that investment in energy resources and infrastructure are necessary for achieving sustainable development. Such investment will be successful if the EAC attracts foreign investors in energy. However, such attraction depends on the provision of a favourable investment environment in the region. This Chapter has presented some of those requirements for favourable investment. Investment in renewable energy has also been advocated as one of the best solutions for the EAC now. Overall, however, a multilateral investment agreement for the EAC will significantly improve investments in the region. In the next Chapter, the imperatives for sustainable energy are discussed. These expound on the investment requirement of protecting health, safety and the environment.

²⁹¹ Xi W, M Runlin and M Dong ‘Strategy, Policy, and Law Promoting Renewable Energy’ in Bradbrook AJ, R Lyster, RL Ottinger & W Xi (eds) *The law of energy for sustainable development* (2005) 321

²⁹² Ibid. 322

²⁹³ Ibid.

²⁹⁴ Ibid.

Chapter Five

Imperatives for Achieving Sustainable Energy

The definition of sustainable energy adopted in Chapter One was taken from the World Energy Assessment, which defines sustainable energy as “energy, which is produced and used in ways that support human development over the long term, in all its social and economic and environmental dimensions”.²⁹⁵ As also argued in the previous chapters, energy use is a major contributor to environmental degradation as it results into air pollution, acidification, and global warming. Energy contributes 86 percent of global emissions of sulphur dioxide, the main chemical responsible for acidification. Moreover, fossil fuels (petroleum, natural gas and coal) emit approximately 78 percent of anthropogenic carbon dioxide and 23 percent of methane, the main greenhouse gases responsible for global warming.²⁹⁶ “Approximately two-thirds of the global warming problem is caused by energy use and production.”²⁹⁷ To achieve sustainable energy, therefore, efforts must be geared towards a healthy environment. This is the aim of this Chapter.

As stated in both the Tanzanian and Rwandan National Energy Policies, all stages of energy resources exploitation, production, conversion, transportation, storage and end use can have negative impacts on the environment, thus making health, safety and environmental consequences of energy production and utilisation a major concern.²⁹⁸ To respond to these consequences, there is a need to strengthen co-operation in national, regional and international programmes aimed at mitigating environmental impacts of energy, and to ensure the implementation of national obligations under international treaties. Legislative and regulatory functions in health, safety and environmental protection also need to be strengthened.²⁹⁹

²⁹⁵ IUCN Commission on Environmental Law and its Climate and Energy Working Group, “Brainstorming Session in the World Energy Assessment and Sustainable Energy Outreach,” March 12, 2003, at 1 quoted in Worika (2005) 327

²⁹⁶ Johansson (2005) 49

²⁹⁷ Bradbrook AJ and RD Wahnschafft (2005) 186

²⁹⁸ Tanzania National Energy Policy para 5.4 and for Rwanda see GTZ Eastern Africa Energy (n 56 above) (in exactly the same wording).

²⁹⁹ Ibid.

5.1. The Legal Framework

The essence of sustainable development is in the integration of environmental protection and socioeconomic development. Thus, international law obliges countries to respect the environment, health and safety, in order to attain sustainable development. Thus, Chapter 38 of Agenda 21 calls upon governments to commit themselves to the “further development of international law on sustainable development, giving special attention to the delicate balance between environmental and developmental concerns”.³⁰⁰ Further, according to Article 4 of the Rio Declaration, “[I]n order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it”.³⁰¹ This is the idea that has to be promoted in the EAC’s strategy for sustainable energy.

International environmental law has a number of legal principles that can be applied to sustainable energy. These include the precautionary approach, the polluter pays principle, the preventive principle, the principle of common but differentiated responsibility, and the principle of public participation.³⁰² The precautionary and preventive principles intend to control the possibility of harm arising, while the polluter pays principle deals with the situation where precaution and prevention have failed and those responsible for the harm need to be held accountable and to compensate for the ensuing harm.³⁰³ Other legal principles relevant to sustainable energy are found in international trade law and in international law generally as further discussed below.

5.1.1. The Precautionary Principle

This concept is to the effect that where there exists a real risk of serious and irreversible environmental damage, the regulator should act and prevent that damage from arising even where full scientific certainty as to the threat in question is lacking.³⁰⁴ Kenya’s Environmental Management and Co-ordination Act (EMCA)³⁰⁵ defines the ‘precautionary principle’ in similar terms that where there are threats of damage to the environment, whether serious or irreversible,

³⁰⁰ Mak K-N and F Soltau (2005) 210

³⁰¹ Bosselmann (2005) 79

³⁰² Principles 15, 16, 7 and 10 of the Rio Declaration on Environment and Development (1992), 31 ILM 874, quoted in Bosselmann (2005) 78

³⁰³ Muchlinski *PT Multinational enterprises and the law* 2 ed (2007) 539-540

³⁰⁴ *Ibid.* 540

³⁰⁵ Act 8 of 1999, Section 2

lack of full scientific certainty shall not be used as a reason for postponing cost effective measures to prevent environmental degradation. The precautionary principle is one of the principles of sustainable development that should guide the High Court in exercising its jurisdiction under the EMCA.³⁰⁶ EAC member states need to abide by this principle.

5.1.2. The Preventive Principle

According to this principle, an enterprise that uses hazardous industrial process, or disseminates harmful products or waste, has a responsibility to ensure that the process, product or waste, does no harm.³⁰⁷ This principle is only generally mentioned in EAC environmental legislation, with no specific obligation on enterprises.³⁰⁸

5.1.3. The Polluter Pays Principle

It is a key requirement in developing regimes of environmental protection that the cost of pollution be borne by the person responsible for causing the pollution. This is stated in Principle 16 of the Rio Declaration.³⁰⁹ These principles must not only be integrated into the common energy policy for East Africa, they must also be strictly applied and enforced if sustainable development is to be achieved. Some EAC member states have already tried to integrate this in their national legislation. Thus, according to section 2(k) of Uganda's National Environment Act, one of the principles of environmental management that have to be fulfilled include ensuring that the true and total costs of environmental pollution are borne by the polluter. In Kenya, the polluter pays principle is one of the principles of sustainable development that should guide the High Court in exercising its jurisdiction under the EMCA.³¹⁰

5.1.4. Health and Environmental Protection in International Trade

In international trade, the protection of health and the environment are allowed as exceptions to the principles of the WTO (MFN,³¹¹ National Treatment,³¹² etc.), found in the GATT. According to Article XX of GATT:

³⁰⁶ Section 3(5)(f) of EMCA

³⁰⁷ Muchlinski (2007) 540

³⁰⁸ See, for example, Section 7(2)(k) and (n) of EMCA

³⁰⁹ Muchlinski (2007) 541

³¹⁰ Section 3(5)(e) of EMCA

³¹¹ Article I of GATT

³¹² Article III of GATT

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

(b) necessary to protect human, animal or plant life or health ...

(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.

Thus, a party attempting to justify a measure that violates National Treatment will be subject to the two-tier application of Article XX affirmed by the Appellate Body in the *Shrimp-Turtle* case.³¹³ It must first show that the measure aims to protect one of the listed policy exceptions and then argue its applicability under the chapeau of Article XX.³¹⁴ The two-tier test was also explained by the Appellate Body in the *US – Gasoline Case*³¹⁵ while examining the Panel's findings that the United States regulation concerning the quality of gasoline was inconsistent with GATT Article III:4 and not justified under either paragraph (b), (d) or (g) of Article XX.

In *US - Shrimp*,³¹⁶ interpreting the chapeau of Article XX, the Appellate Body described the nature and purpose of Article XX as a balance of rights and duties that: “A balance must be struck between the *right* of a Member to invoke an exception under Article XX and the *duty* of that same Member to respect the treaty rights of the other Members”.

In *US – Gasoline*,³¹⁷ the Appellate Body held that the concepts of arbitrary or unjustifiable discrimination and disguised restriction on international trade were related concepts, which imparted meaning to one another. According to the AB, disguised restriction includes disguised *discrimination* in international trade, and *concealed* restriction or discrimination in international trade does *not* exhaust the meaning of disguised restriction. The AB considered that disguised restriction may properly be read as embracing restrictions amounting to arbitrary or unjustifiable discrimination in international trade taken under the guise of a measure formally within the terms

³¹³ Report on *United States – Import Prohibition of certain Shrimp and Shrimp Products* WT/DS58/AB/R para 118

³¹⁴ Pillai R. (2002) ‘Freedom and Free Trade; WTO panels on domestic policy-making’ Book Review

³¹⁵ *United States—Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R (Apr. 29, 1996)

³¹⁶ (WT/DS58/AB/R) / DSR 1998:VII, 2755

³¹⁷ *United States—Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R (Apr. 29, 1996)

of an exception listed in Article XX. The aim is avoiding abuse or illegitimate use of the exceptions to substantive rules available in Article XX.

As regards discrimination, Article 3(5) of the UNFCCC states that measures undertaken to combat climate change should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. The principle is similarly restated in Article 2(3) of the Kyoto Protocol.³¹⁸

In respect of GATT Article XX(b), the Panel on *US – Gasoline*, presented a three-tier test of the elements the party invoking the exception had to establish. First, the party had to show that the policy in respect of the measures for which the provision was invoked fell within the range of policies designed to protect human, animal or plant life or health. Secondly, the party would show that the inconsistent measures for which the exception was being invoked were necessary to fulfil the policy objective. Thirdly, the party would show that the measures were applied in conformity with the requirements of the introductory clause of Article XX. “In order to justify the application of Article XX(b), all the above elements had to be satisfied.”³¹⁹

Moreover, in *EC – Asbestos*, the Panel found that the measure at issue, a French ban on the manufacture, importation and exportation, and domestic sale and transfer of certain asbestos products including products containing chrysotile fibres, though inconsistent with GATT Article III:4, was justified under Article XX(b) in light of the underlying policy of prohibiting chrysotile asbestos in order to protect human life and health.³²⁰

Regarding Article XX(g) of GATT on the environment and natural resources, in the *US – Gasoline* case the Appellate Body concluded its analysis by emphasising the function of Article XX with respect to national measures taken for environmental protection that WTO Members have a lot of freedom to determine their own policies on the environment (including its relationship with trade), their environmental objectives and the environmental legislation they enact and implement. Regarding the WTO, that autonomy is circumscribed only by the need to respect the requirements of the *General Agreement* and the other covered agreements.³²¹ In *US -*

³¹⁸ Mak and Soltau (2005) 213

³¹⁹ Panel Report on *US - Gasoline*, para. 6.20 reported in WTO Analytical Index: GATT 1994 [online] Available at: http://www.wto.org/english/res_e/booksp_e/analytic_index_e/gatt1994_07_e.htm#article20B Accessed 06/10/2008.

³²⁰ Reported in WTO Analytical Index: GATT 1994 [online] Available at: http://www.wto.org/english/res_e/booksp_e/analytic_index_e/gatt1994_07_e.htm#article20B Accessed 06/10/2008.

³²¹ Appellate Body Report on *US - Gasoline*, pp. 30-31

Shrimp,³²² the Appellate Body was of the view that Article XX(g) should be interpreted widely to extend to living, non-living, renewable and exhaustible natural resources.³²³

In allowing countries to take any measures to protect human, animal or plant life and health, as well as measures to preserve exhaustible natural resources, the above provisions are in support of maintaining sustainable energy. International trade law, therefore, is one of the legal bulwarks supporting sustainable energy.

5.1.5. Environmental Requirements and Sustainable Energy in Africa

Furthermore, Article 24 of the African Charter on Human and Peoples Rights states that all peoples have a right to a general satisfactory environment favourable to their development. In order to have a healthy environment, the principles of sustainable development, that is, energy sustainability need to be integrated into national, regional and continental policies and strategies.

Article 43 of African Declaration on Co-operation, Development and Economic Independence (Development Declaration)³²⁴ calls upon member states to view the problems of environmental protection within the contexts of economic and social development, and thus pay greater attention to natural resources' conservation and management. The protection and enhancement of the environment and natural resources against abuse in the interest of the present and future generations, is also well articulated in Article 33 of the Lome Agreement³²⁵ as a basic object that ACP States shall strive to achieve.

The link between energy and the environment is clearly brought out in Article 3(c) of the Convention of the African Energy Commission, which gives as one of the Convention's Guiding Principles: 'Development and utilisation of sustainable and environmentally sound energy'.

In the 'Plan of Implementation of the World Summit on Sustainable Development',³²⁶ the Summit recognised that Africa's efforts to achieve sustainable development have been hindered by, among others, insufficient investment, limited market access opportunities and supply side constraints. The international community acknowledged the efforts of NEPAD to eradicate

³²² (WT/DS58/AB/R) / DSR 1998:VII, 2755

³²³ WTO Analytical Index: GATT 1994 [online] Available at: http://www.wto.org/english/res_e/booksp_e/analytic_index_e/gatt1994_07_e.htm#article20B Accessed 06/10/2008.

³²⁴ OAU Document CM/ST. 12 (XXI) of May 12, 1973, reproduced in 12 I.L.M. 996 (1973).

³²⁵ (December 15, 1989), EU Official Journal L 229, 17/08/1991, p.003-0280, Document No. 291A0817(01).

³²⁶ United Nations 'Resolution 2 Plan of Implementation of the World Summit on Sustainable Development' *Report of the World Summit on Sustainable Development* (2002) para 62

poverty and promote sustainable development of African States in partnership with themselves and with the international community, and thus pledged its support to the implementation of NEPAD's vision.

The Summit further observed that achieving sustainable development includes actions at all levels to:³²⁷

- (j) Deal effectively with energy problems in Africa, including through initiatives to:
 - (i) Establish and promote programmes, partnerships and initiatives to support Africa's efforts to implement NEPAD objectives on energy, which seek to secure access for at least 35 percent of the African population within 20 years, especially in rural areas;
 - (ii) Provide support to implement other initiatives on energy, including the promotion of cleaner and more efficient use of natural gas and increased use of renewable energy, and to improve energy efficiency and access to advanced energy technologies, including cleaner fossil fuel technologies, particularly in rural and peri-urban areas.

Caution towards NEPAD, however, is not uncommon among scholars. Mosoti³²⁸ for instance argues that NEPAD lacks the necessary legal grounding for an institution with such development mandate. He suggests that in order to achieve its original mandate, NEPAD needs to have independent institutional and legal capacity to formulate decisions, and identify and implement priorities without AU's restrictions. Mosoti adds that the exact link between NEPAD and regional integration efforts is not clear³²⁹ and, therefore, not necessarily supportive. Finally, NEPAD depends on its success on external funding, which affects its independency and operations.³³⁰ Perhaps only time will tell whether NEPAD is the best thing that ever happened to Africa regarding sustainable development. For now, nonetheless, it is still safe to follow the lead NEPAD has taken. Consequently, EAC countries must conform to the regional and international requirements for sustainable development.

³²⁷ Ibid.

³²⁸ Mosoti V 'The New Partnership for Africa's Development: Institutional and Legal Challenges of Investment Promotion' (2004) 5 *San Diego International Law Journal* 148

³²⁹ Ibid. 149

³³⁰ Mosoti (2004) 150

5.1.6. EAC's Environmental Legislation

In the EAC, the lack of legislation promoting clean and reasonably priced energy considerably hampers sustainable development and is a principal contributor to most of the environmental, health, and social problems. The majority of people use biomass fuels for cooking and heating and use such fuels in polluting and inefficient ways.³³¹ There are, however, commercial energy sources with plenty of oil, which also is problematic.³³² Other than the fact that oil is exhaustible, its extraction, transportation and use are detrimental on the people and their environment. In countries, such as, Nigeria, the extraction of crude oil has led to internal conflicts (as further discussed below), its transportation has always caused accidents where many lives are lost, and like in many other countries, the fumes from the vehicles or machinery using oil are major contributors to the pollution in cities.

Article 58 of the Treaty Establishing the African Economic Community (AEC) requires Member States to promote a healthy environment through national, regional and continental policies, strategies and programmes. Under the environmental legislation of each EAC country abuse of the environment in one way or the other leads to liability. In Uganda, for example, most of the environmental offences amount to crimes. Thus, Ugandans can be prosecuted for any act that degrades the environment, using the 'Guidelines on investigation and prosecution of environmental crimes' submitted to the National Environment Management Authority (NEMA) in March 2005 by the Environmental Law Resources Centre. This is a higher standard than that under the common law legal system, where action could be based in nuisance, negligence, trespass or the rule in *Rylands v Fletcher*,³³³ which covers liability for damage caused by the escape of noxious substances from land owned by the tortfeasor. Because such actions are civil in nature, it is mostly individuals against other individuals, while where environmental abuse is criminalised, the community – who are always the victims – is protected by the State which takes on the prosecution of the case. The other countries in the region should emulate Uganda's example.

Legislated environmental controls guide Kenya's lead in the development of geothermal resources in the region. Such controls are contained in the Geothermal Resources Act, the Water

³³¹ Worika (2005) 324

³³² Ibid.

³³³ (1868), L.R. 3 H.L. 330; [1861–73] All E.R.

Act, the Wildlife Act and the Forest Act, whose harmonisation is found in the EMCA. The EMCA “specifically covers acceptable methods of handling polluting agents arising from geothermal developments, such as, liquid, gas, and thermal effluents; noise pollution; and toxic and hazardous waste”.³³⁴ Thus, the EMCA provides a legislative framework for the sustainable energy use of natural resources in an environmentally friendly manner and also offers avenues for conflict resolution³³⁵ through the National Environment Tribunal established in Part XII of the Act. The other EAC States should emulate Kenya and have a regulatory framework that effectively monitors and enforces environmental obligations in the energy sector. EAC member states already have a MOU between the Republic of Kenya and the Republic of Uganda and the United Republic of Tanzania for Co-operation on Environment Management.³³⁶ This is already a big step ahead. What EAC countries have to do is to harmonise their environmental laws.

5.2. The Ethical Framework for Sustainable Energy

The ethics of sustainable development provide the ethical framework for sustainable energy, since sustainable development is the overarching concept for future energy policies. There are thus some ethical principles that apply to sustainable energy. First is the principle of social and economic equity, that is, concern for adequate and equitable availability of energy among the people living today (intrageneration justice). Secondly, there must be responsibility for future generations, that is, energy “must be generated and used in a way that does not compromise the ability of future generations to meet their own needs” (intergeneration justice).³³⁷ In Kenya, the principles of intergenerational and intragenerational equity are among the principles of sustainable development that should guide the High Court in exercising its jurisdiction under the EMCA.³³⁸ Thirdly is the principle of ecological sustainability which is a concern for equity toward the nonhuman, natural world, demanding that energy “must be generated and used in a way that does not compromise the integrity of the Earth’s ecological systems” (interspecies justice).³³⁹ The last concern is not always recognised. Nonetheless, the Subcommittee on the

³³⁴ Worika (2005) 365

³³⁵ Ibid.

³³⁶ See Article 142.1(i) of the EAC Treaty

³³⁷ Bosselmann (2005) 87

³³⁸ Section 3(5)(d) of EMCA

³³⁹ Ibid.

Ethics of Energy of UNESCO's World Commission on the Ethics of Scientific Knowledge and Technology describes its ethical considerations as:³⁴⁰

The preservation of the environment is a key condition for the perpetuation and prosperity of human life. If this environment is to continue to provide what is needed for sustaining and developing the human species, it is imperative to fully understand the importance of preserving and improving its ecological functions at local, regional and global levels.

More specific requirements for sustainable energy could include:³⁴¹

- Protection of the natural environment without compromise, including the avoidance of irreversible impacts on the ecosystem and the maintenance of biodiversity;
- Minimization, or preferably avoidance, of greenhouse gas emissions and other contaminants to the environment;
- Use of all energy from all sources as efficiently as possible;
- Maximum possible use of renewable energy sources within the capacity of the ecosystem to allow natural regeneration;
- Investment in, and research into, energy issues, including methods to improve energy efficiency and new sources of energy, particularly renewable sources;
- Responsibility of all members of society to conserve energy and use it in an efficient way;
- Provision of ambitious and binding targets alongside the provision of incentives to meet such targets; and
- Promotion of public awareness of and involvement in energy issues.

5.3. Strategies for Achieving Sustainable Energy

Many measures have been taken, but still more can be taken to increase energy efficiency by making it sustainable. These same measures aim at conserving energy. For instance the policy statements in Tanzania's Energy Policy include the promotion of Environmental Impact Assessment (EIA) as a requirement for all energy programmes and projects, the promotion of energy efficiency and conservation as a means towards cleaner production and pollution control measures. The statements also include the promotion of development of alternative energy sources including renewable energies and woodfuel end use efficient technologies to protect

³⁴⁰ World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) Subcommission on "The Ethics of Energy," UNESCO Headquarters, Report, Nov. 2-3, 2000 at 14-15 reported in Bosselmann (2005) 86

³⁴¹ Bosselmann (2005) 87

woodlands, and the promotion of disaster prevention, response plans, and the introduction of standards for exploration, production, conversion, transportation, distribution, storage, and fuel end use.³⁴²

NEMA advises the Government of Uganda to include in its portfolio of climate policy instruments: emissions, carbon or energy taxes; tradable or non-tradable permits; provision and/or removal of subsidies; deposit or refund systems; technology or performance standards; energy mix requirements; product bans; voluntary agreements; government spending and investment; and support for R&D.³⁴³ A number of these are discussed in this dissertation. In the EAC, as discussed below, there are already examples of successful adoption of cost effective measures to reduce energy consumption, lower energy costs and reduce emissions.³⁴⁴ These measures are both legislative and regulatory.

5.3.1. General Measures

5.3.1.1. Environmental Impact Assessment

Environmental Impact Assessment (EIA) is one of the most effective measures to promote energy for sustainable development as it prevents and controls actual and potential environmentally harmful developments.³⁴⁵ The EIA “must detail the environmental impacts of any proposed action, any unavoidable adverse environmental effects, alternatives to the proposed action, mitigation measures that could alleviate impacts, short- vs. long-term effects, and any irreversible commitments of resources”.³⁴⁶ The EIA “offers an immediate legal method of identifying and remedying adverse impacts of energy projects”.³⁴⁷ The requirement for EIA exists in a number of countries, in Article 206 of the UN Convention on the Law of the Sea, and in the administrative procedures of the World Bank and other multilateral banks.³⁴⁸

Correspondingly, Tanzania’s Energy Policy emphasises the need to ensure that energy development projects and programmes are subjected to EIAs.³⁴⁹ In Kenya, the EMCA sets out

³⁴² Tanzania’s National Energy Policy (2003) para 5.4.

³⁴³ National Environment Management Authority *State of environment report for Uganda* (2006/07) 241

³⁴⁴ Ottinger RL ‘Legal Frameworks for Energy for Sustainable Development’ in Bradbrook AJ, R Lyster, RL Ottinger & W Xi (eds) *The law of energy for sustainable development* (2005) 122

³⁴⁵ Bradbrook and Wahnschafft (2005) 191

³⁴⁶ Ottinger (2005) 106

³⁴⁷ Ibid. 107

³⁴⁸ Ibid.

³⁴⁹ Tanzanian National Energy Policy para 5.4

the requirements for an EIA, to be concluded prior to any energy development activity.³⁵⁰ In Tanzania, EIAs and environmental management plans are set as mandatory especially in relation to the petroleum subsector.³⁵¹

5.3.1.2. Disclosure

The laws should require the disclosure by utilities of their emissions and power generation sources. The required information normally includes “the reporting of generation sources, fuel mix, fuel emissions, kWh price, price volatility, and contract terms”.³⁵² Where there are a variety of suppliers and competition has thus been introduced, disclosure allows consumers to make informed decisions.³⁵³

5.3.1.3. Pollution Taxes

One way to protect the environment is by imposing taxes on pollutants or polluting fuels, as has been done in Brazil, Denmark, Finland, Italy, Latvia, Lithuania, and Sweden.³⁵⁴ While the system reduces emissions, the funds can be used to develop clean energy resources. “Taxation of carbon dioxide emissions or polluting fuels is one of the most direct ways of addressing global warming and raising revenues for clean energy.”³⁵⁵ Pollution taxes may be imposed by incorporating environmental costs and benefits into the prices of energy products, with polluting products being more expensive than clean products. The danger with this is that while it may work in the developed countries, in the EAC, where energy prices are already considered too high for the majority of the people, taxes or higher prices will only discourage consumers from using modern energy resources. They will then resort to the traditional sources, such as, biomass and that have adverse effects.

Pollution taxes are proposed in Kenya’s EMCA as some of the fiscal disincentives or fees the Minister responsible for finance may impose to induce or promote the proper management of the environment and natural resources or to prevent or abate environmental degradation.³⁵⁶ Likewise, Uganda’s NEMA proposes that the Minister responsible for finance includes in the

³⁵⁰ Article 58(1) of the EMCA; see also Article 20 of Uganda’s National Environment Act.

³⁵¹ Tanzanian National Energy Policy para 3.2.2

³⁵² Worika (2005) 365

³⁵³ Ibid.

³⁵⁴ Ottinger (2005) 105

³⁵⁵ Ibid.

³⁵⁶ Section 57(1) and (2)(c) of EMCA

annual budget, tax disincentives to deter bad environmental behaviour that leads to depletion of environmental resources or that causes pollution.³⁵⁷ It is suggested that to have effective control of pollution, EAC environment legislation goes beyond mere suggestions to imposing strict obligations on polluters.

5.3.1.4. Emissions Trading

Provision can be made for emission trading rights whereby polluters who reduce their emissions below a given limit gain rights, which they can in turn sell to those above the limit. This is a better control mechanism than pollution tax, as specified pollutant emission reductions will be assured to fall below the pollution cap.³⁵⁸ On the international scene, the Clean Development Mechanism (CDM) is allowed in the Kyoto Protocol, and it has benefited developing countries.³⁵⁹ Uganda, for example, has already benefited from this system.

In Uganda, the national conservation trust fund (ECOTRUST) and FACE are some of the leading intermediaries in carbon trading in the country.³⁶⁰ Thus, in a project – ‘Trees for Global benefits program’ in Ruhinda and Bunyaruguru counties of Bushenyi District Western Uganda, the payments are channelled through a European based carbon broker Bioclimatic Research and Development (BR&D) and ECOTRUST to individual farmers.³⁶¹ Again in Uganda, in the West Nile Power Project, PCF, a private-public partnership operated by the World Bank, buys the carbon emission reductions that accrue from the project, and is a source of revenue, yet benefitting five districts in West Nile with power supply.³⁶² Similarly, FACE, working on behalf of the Dutch energy group, FACE, signed an agreement with the Government of Uganda to replant the deforested areas of Mt. Elgon and Kibale National Parks in order to sequester carbon, manage water resources and recreate a habitat for diverse wildlife. In return, the Government allows FACE to sell the carbon offsets generated.³⁶³

The story in neighbouring Kenya is quite the opposite. There, Kenyan firms are not taking advantage of their potential to exploit the carbon credits market and are henceforth losing out on

³⁵⁷ Section 93(c) of NEMA

³⁵⁸ Ottinger (2005) 105

³⁵⁹ Mak and Soltau (2005) 220

³⁶⁰ National Environment Management Authority (2006/07) 221

³⁶¹ Ruhweza, A & M Masiga *An inventory of initiatives/activities and legislation pertaining to Ecosystem Payment Schemes (EPS) in Uganda* (2005) 23

³⁶² Ibid.

³⁶³ Ibid.

the global carbon emissions trade.³⁶⁴ A survey by the *Business Daily* showed that no company in Kenya has so far earned anything from the carbon market despite Shs.8.8 trillion changing hands in carbon emissions exchanges in 2008, according to research firm New Carbon Finance.³⁶⁵ However, two carbon market-consulting firms J.P. Morgan ClimateCare and Co2 Balance have started work in Nairobi, and it is hoped that they will increase awareness and boost development of carbon trade.³⁶⁶

5.3.1.5. Respect for the Rights of the Local Residents

In exploring, exploiting, transmitting, or otherwise investing in energy infrastructure it is quite often that the local populations will be affected by resettlement schemes, the potential destruction of livelihoods, dissatisfaction as to the share of the energy revenues, etc. In Uganda, the residents of the Lake Albert region and of Amuru district where oil wells have been found are already outraged and oppose anyone from another region exploiting ‘their’ oil. The residents claim that the land and its natural resources belong to them as a community.³⁶⁷ Such these issues need to be addressed in the energy policy.

Nigeria’s Niger Delta serves as an example on how things can go wrong when no adequate attention is paid to the residents. Residents of the Niger Delta complain of decades of internal exploitation of the people by the State and its elites. The Niger Delta has been referred to as a home to amazing paradoxes: A “gigantic economic reservoir of national and international importance”; yet a cathedral of “administrative neglect, crumbling social infrastructure and services, high unemployment, social deprivation, abject poverty, filth and squalor, and endemic conflict”.³⁶⁸ The Nigerian Guardian has also been quoted saying that “The Niger Delta crisis is without doubt the most potent expression of the failure of the Nigerian state... The region’s crisis has become the sore of the nation, a cancer that may erode the fragile bonds that hold this polyethnic nation together... A rapacious ruling elite has reduced the people of the Niger... to a life of penury.”³⁶⁹

³⁶⁴ Mbogo, S ‘Kenyan firms lose out on carbon emissions trading’ (2009) *Business Daily – Africa* [online] Available at: http://www.bdafrica.com/index.php?option=com_content&task=view&id=12442&Itemid=37 Accessed 03/05/2009.

³⁶⁵ Ibid.

³⁶⁶ Ibid.

³⁶⁷ Baguma, R ‘Why is Bunyoro demanding a share of oil money?’ (2009) *Saturday Vision* 11

³⁶⁸ Abidde, SO ‘Henry Okah: In Search of Peace and Justice in the Niger Delta’ (2008) *The African Executive*.

³⁶⁹ Ibid.

A possible cause of the above situation is over centralisation of regulatory authority over energy resources resulting into inequitable distribution of revenues derived from the exploitation of energy resources, usually in favour of a few individuals in the central government, as is the case of the Niger Delta in Nigeria. Under such instances, energy exploration and exploitation lead to environmental degradation, despoliation, and deprivation. The resulting civil unrest is adverse to sustainable energy investment.³⁷⁰

The above are some of the measures that need to be included in the EAC Energy Policy. These measures should be supplemented with standards as discussed below.

5.3.2. Standards

An effective and low cost way of promoting use of energy efficient equipment and assuring that emission reductions are achieved is the setting of enforceable standards. “Standards for minimum efficiency performance of products like appliances, light fixtures, ballasts, motors, and the like, are effective in removing from the marketplace the least efficient products.”³⁷¹ Rwanda recognises the need for environmental standards to be developed “in order to ensure protection of the environment, health and safety and compliance to national and international requirements”.³⁷² Likewise, a policy statement in Tanzania’s Energy Policy is for petroleum operations to be undertaken “by ensuring highly established standards for environment, safety, health, and product quality”.³⁷³ In Uganda, such standards are outlined in Part VI of the National Environment Act, which deals with air, water and soil quality standards: standards for the discharge of effluent into water, for the control of noxious smells, for the control of noise and vibration pollution, and for subsonic vibrations; standards for minimisation of radiation; and other general standards.³⁷⁴ In Kenya, Part VIII of the EMCA deals with environmental quality standards, and section 70 even establishes a Standards and Enforcement Review Committee.

5.3.2.1. Pollution Standards

Legislated standards for water and air pollution emissions from power plants and exhaust pipe emissions from vehicles are economic and can be very effective in promoting clean energy. In

³⁷⁰ Worika (2005) 361

³⁷¹ Ottinger (2005) 107

³⁷² GTZ Eastern Africa Energy (n 56 above)

³⁷³ Tanzanian National Energy Policy para 3.2.2

³⁷⁴ Part VI of the National Environment Act Cap 153, sections 24-32

practice, a numerical limit on the emissions is set.³⁷⁵ EAC countries are trying to have these standards kept. In fact, both the EMCA and Uganda's NEMA criminalise any actions that violate the water and air pollution standards.³⁷⁶ It must be noted, however, that the enforcement of these provisions is still very poor and hardly any cases come to the courts of law on such issues. Indeed, the State of the Environment Report for Uganda acknowledges that standards have been established for noise and air pollution and effluent discharge, since 2004, "enforcement of the standards notwithstanding".³⁷⁷

5.3.2.2. Building Codes and Standards

Another way energy can be used sustainably is to adopt energy requirement standards for the construction of new buildings. "Building energy standards usually require all new residential, commercial, and industrial construction to be built to a minimum energy efficient level that is cost effective and technically feasible."³⁷⁸ Section 32 of NEMA requires the establishment of standards for buildings. However, NEMA has not yet come up with such standards. No EAC member state has these standards in place yet. Different types of technologies can be used to upgrade efficiency. These include "adding insulation to walls and attics, replacing standard single pane windows with energy efficient windows, sealing leaky heating and cooling air ducts, sealing air leaks in the building envelope, upgrading heating and cooling systems, replacing inefficient lighting, and installing energy use control systems".³⁷⁹

5.3.2.3. Appliance Efficiency Standards³⁸⁰

Standards should also be set for the use of energy efficient appliances in industries, and in both commercial and residential buildings. These standards would apply to air conditioners, fans, refrigerators, water heaters, washing machines, dishwashers, cookers, lights and other equipment. These aim at conserving the energy.

Uganda's Energy Policy admits that efficiency of energy usage is low in most factories and industries in Uganda, and that a number of them operate below rated capacity and use old

³⁷⁵ Ottinger (2005) 107

³⁷⁶ Sections 72 and 78(2) of EMCA, and section 98 of NEMA

³⁷⁷ National Environment Management Authority (2006/07) Annex 7

³⁷⁸ Ottinger (2005) 108

³⁷⁹ Ibid.

³⁸⁰ Ibid.

inefficient technologies.³⁸¹ Moreover, wood fuel, which represents the bulk of domestic fuel in Uganda, is burnt in inefficient traditional stoves. The other appliances used (refrigerators, deep freezers, air conditioners, etc.) are old and mostly bought second hand and are, therefore, inefficient.³⁸² However, no specific strategy is given on how to deal with the problem, though there are some known initiatives in Uganda,³⁸³ Rwanda and Tanzania, at making energy efficient stoves, which are advertised on television on a daily basis at least in Uganda.

5.3.2.4. Vehicle Standards

The transport sector is the main consumer of petroleum products in the EAC, accounting for 8 percent of total imports in Uganda for instance, and consuming more than 40 percent of all imported petroleum in Tanzania.³⁸⁴ The development of the transport sector, therefore, has both direct and indirect implications for the total energy consumption and social-economic growth.³⁸⁵ Yet the transport sector is largely inefficient mainly due to lack of mass transport systems, poor mechanical conditions of vehicles and bad roads. Gaseous emissions, such as, carbon dioxide (CO₂), nitrous oxides (NO_x), dinitrogen oxide (N₂O), sulphur dioxide (SO₂), volatile organic compounds (VOCs), lead and particulate matter (PM) from vehicles significantly pollute the environment. This is mainly because most of the vehicles imported in the EAC are second hand vehicles from Japan and United Arab Emirates.³⁸⁶

NO_x and SO₂ are the primary causes of acid rain, whose key effects are injury and eventual death of vegetation. These emissions also cause photochemical smog, which is a growing problem in most developing country cities, including Nairobi and Dar es Salaam.³⁸⁷ The smog refers to haze or ground level ozone arising from complex chemical reactions where sunlight breaks down chemical compounds from motor vehicles. “Respiratory ailments, including asthma, emphysema and bronchitis represent the primary health problems from human exposure to ground level ozone. Children are particularly susceptible to ozone-related illnesses since they spend most of their time outdoors.”³⁸⁸

³⁸¹ Uganda Energy Policy (2002) para 1.3.3

³⁸² Ibid. para 1.3.4

³⁸³ See National Environment Management Authority (2006/07) 172

³⁸⁴ Uganda Energy Policy (2002) para 1.3.2

³⁸⁵ Tanzania National Energy Policy (2003) para 3.1.1

³⁸⁶ UNEP (n 29 above)

³⁸⁷ Ibid.

³⁸⁸ Ibid.

An increase in cases of respiratory diseases is also expected to result from inhalation of Peroxyacyl Nitrates (PAN) and particulate matter (both PM10 and PM2.5) by those walking or trapped for long hours in traffic jams. Thousands of East Africans running small businesses in exposed places along major city roads and open-air markets are at risk from respiratory diseases. Lead inhaled or ingested through vegetables causes, among others, IQ losses in children under 6 years of age and delayed puberty in young girls.³⁸⁹ “Other negative health impacts are low attention span and hyperactivity in children, and increased risk of cardiovascular disease, hypertension and increased blood pressure in adults.”³⁹⁰

Despite these problems, EAC energy policies are silent on how to decongest and improve quality roads, target road improvement as a fuel reduction option, and eliminate leaded gasoline and ordinary diesel, despite commitments to phasing out leaded gasoline as per the Dakar Declaration of 2001. Significantly missing from the energy policies, are provisions on the standardisation and quality control of petroleum products. Moreover, the policies do not deal with the “promotion of mass transport in cities; construction of ring roads, flyovers and by-passes; repair of dilapidated roads; promotion of use of bicycles; gradual elimination of very old vehicles from the roads; quality monitoring of smoke and vapour emitted from vehicles; and annual vehicle inspection programmes”.³⁹¹ The required strategy is to ensure efficient and safe use of petroleum products, determined by the standard of vehicles, the quality of the transport systems and the use of most energy efficient transport means.³⁹²

Consequently, legislation regulating the vehicle kilometres per litre standards for all vehicles imported into the EAC, regulatory measures for improvements in licensing, storage facilities and safety standards can make a big impact on pollution reduction. Other vehicle measures that have been adopted like in the U.S., France and Italy and could be adopted in the EAC as well, “include multiple occupancy vehicle lanes on highways and car pooling incentives, including company provided vanpools, elimination of free parking by business establishments, and parking fees”.³⁹³

³⁸⁹ Selevan *et al* ‘Concentrations of lead and delayed puberty in girls’ (2003) *The New England Journal of Medicine* 348: 16 – 21.

³⁹⁰ UNEP (n 29 above)

³⁹¹ *Ibid.*

³⁹² Tanzania National Energy Policy (2003) para 3.1.1

³⁹³ Ottinger (2005) 111

5.3.3. Technology Solutions and R&D

Although, the manufacturing sector is one of the major consumers of energy, particularly electricity and petroleum, in most industries, energy is used inefficiently due to old equipment, outdated technologies and capacity under-utilisation. These inefficient practices need to be changed by instituting basic standardisation of energy end use appliances. This requires sufficient human and financial resources to ensure safety, health, education, awareness, and maintenance in the manufacturing sector.³⁹⁴ In consideration of safety, health and environmental concerns, there is a need to adopt, adjust and develop technical and product quality in accordance with internationally accepted standards and norms.³⁹⁵

Tanzania in its policy commits itself to conducting research within the country and taking part in “international research, development and application of commercially viable, large-scale technologies for renewable sources of electricity generation”.³⁹⁶ Other than R&D especially in renewable energy technology, technology transfer of energy efficiency and renewable technologies used in the developed countries to the developing countries is very important. In order to achieve this, “technical assistance and education of key energy players is essential to success”.³⁹⁷ Moreover, in the supply of energy, “conversion and transmission losses need to be minimised to the extent technically possible and economically feasible”.³⁹⁸ Because the companies in the market system are small, there is more opportunity for innovative technologies to be tried out, for new business models to be adopted, for increasing efficiency in production, but less engagement in R&D,³⁹⁹ and little or no attention to sustainability.

All EAC countries encourage R&D efforts that give rise to technological innovations in the energy sector, though not all of them provide strategies to this. R&D in energy efficiency, renewable energy, rural energy, energy end use, affordability, and pricing mechanisms need special attention. EAC’s challenge is the inadequacy of financial resources and the lack of skilled work force for R&D. Today, there are various ongoing research activities in the energy sector. These, however are not co-ordinated. Co-operation between public and private sectors in R&D in

³⁹⁴ Tanzania’s National Energy Policy (2003) para 3.1.4

³⁹⁵ Ibid. para 3.2.2

³⁹⁶ Ibid. para 3.2.1

³⁹⁷ Ottinger (2005) 117

³⁹⁸ Article 8 of Bradbrook AJ and RD Wahnschafft’s ‘Non-Legally Binding Statement of Principles for a Global Consensus on Sustainable Energy Production and Consumption’ annexed to Bradbrook and Wahnschafft (2005) 197

³⁹⁹ Balton (2005) 458

energy needs to be encouraged and co-ordinated. More attention need to be paid to University based research findings, which are often the source of economic survey data but receive little or no recognition. “Policy makers need to actively engage researchers and there is great need to move towards evidence based policy and decision-making – policymaking is not an experimental process.”⁴⁰⁰ As Kenya’s Energy Policy suggests, “energy planning activities should integrate socio-economic, cultural and environmental aspects, which is only possible through strong links between policy makers, implementers and researchers – research findings are infrequently incorporated during the decision making process of policy development”.⁴⁰¹ There is also a need to support regional and international co-operation in R&D of “energy forms and of related advanced and innovative environmentally sound technologies in the energy sector”.⁴⁰²

5.3.4. Recycling Programs

The EAC member states could have laws providing for the recycling of their waste paper (particularly the polythene), plastic containers, glass, and metal products. Such recycling happens in the United States, and in Denmark, half of all waste is recycled and eighty percent of new paper is made from used paper.⁴⁰³ Uganda already has such a law; thus, section 52(3) of the NEMA states that every person whose activities generate waste shall employ measures for the minimisation of waste through treatment, reclamation and recycling. Indeed, it is an offence to contravene this provision.⁴⁰⁴ From the provision just quoted, the benefit of recycling is minimisation of waste. The costs of the recycling, treatment and reclamation however, are not mentioned in the Act and it is understood that the person concerned would incur those expenses.

5.3.5. Capacity Building

Education programs, information systems and human resource development are key inputs to any country’s sustainable development. The EAC needs these inputs as well if it is to attain sustainable energy.

⁴⁰⁰ GTZ Eastern Africa Energy (n 49 above)

⁴⁰¹ Ibid.

⁴⁰² Tanzania National Energy Policy 2003 para 5.7.3 and for Rwanda GTZ Eastern Africa Energy (n 56 above)

⁴⁰³ Ottinger (2005) 118 quoting ‘Denmark Moves Ahead in Wind Power’ (1999) *The New York Times* International Section (Oct. 9)

⁴⁰⁴ Uganda’s National Environment Act section 52(4)

5.3.5.1. Education Programs

Education programs are necessary for raising awareness of the measures and standards suggested herein. The public needs to be educated on the importance of taking and complying with measures necessary to increase energy efficiency by conserving energy and using clean energy mechanisms. In particular, those supplying or using loads of energy should be sensitised on the laws that put restrictions on use, and the benefits that accrue to them when they comply. For example, engineers, architects, builders, electricians, and government officials need to be sensitised about appliance efficiency standards and building standards. Importers of vehicles would have to know the vehicle standards. Manufacturers need to know the pollution standards.

Education programs can take many forms, such as, inclusion in curricula for schools and education institutions, conferences, workshops and seminars. Energy efficiency labelling programs of appliances can also be used, together with creating awareness on energy efficiency and conservation in order to induce behavioural change. In addition, the companies can be rated as to their contribution to a clean environment, and awards may be given to the best performing companies.⁴⁰⁵

5.3.5.2. Information Systems

Rwanda and Tanzania recognise in their policies the importance of an efficient energy information system in implementation. Energy information collection, storage, analysis and exchange are vital for planning, policy formulation and decision-making for implementation of programmes and policies. There is thus a need for establishing a proper energy information system that will mobilise human resources and undertake sensitisation, advocacy and dissemination of information to stakeholders in the energy sector for effective implementation of the energy policy.⁴⁰⁶

5.3.5.3. Human Resource Development

The development of a sustainable energy sector also depends on an appropriate utilisation and development of human resources. A gender balanced and non-discriminatory human resource development programme for the energy sector would ensure a fair provision of training and

⁴⁰⁵ See generally Ottinger (2005) 119, Tanzania National Energy Policy (2003) para 5.7.1 and for Rwanda GTZ Eastern Africa Energy (n 56 above)

⁴⁰⁶ Tanzania National Energy Policy (2003) para 5.3 and GTZ Eastern Africa Energy (n 56 above)

education. The training should, however, be supplemented with adequate incentives to attract and retain qualified energy experts. Finally, good performance and conduct by individuals or organisations in the sector should be encouraged and appropriately rewarded.⁴⁰⁷

5.3.6. Government-Sponsored Voluntary Programs

Taking the U.S. government as an example, EAC governments could use “voluntary programs and partnerships with industrial companies to achieve energy efficiencies that will reduce pollutants and carbon dioxide emissions”.⁴⁰⁸ The U.S. government also has an ENERGY STAR program that gives technical assistance and recognition to companies that market very efficient equipment, such as, copiers and computers that automatically switch to a low energy consumption mode when not in use. This program can be very successful in promoting market transformation measures, which establish new energy efficient products in the marketplace.⁴⁰⁹

5.3.7. Common Principles

Bradbrook and Wahnschafft⁴¹⁰ propose a “non-legally binding statement of principles for a global consensus on sustainable energy production and consumption”. In the statement, the two authors give what they refer to as common principles that form Articles 4 and 5 of the statement. Article 4 is to the effect that while respecting each state’s sovereignty to exploit its own energy resources, there is a need to control transboundary environmental damage. Accordingly, in *Trail Smelter*,⁴¹¹ an Arbitration Tribunal awarded damages to the United States regarding air pollution damage caused by a Canadian smelter, and further asked Canada to take appropriate control measures to ensure the cessation of the harm. The Tribunal stated: “No state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another”.⁴¹² Article 4 is consistent with Principle 21 of the Stockholm Declaration⁴¹³ and Principle 2 of the Rio Declaration,⁴¹⁴ which are generally accepted as reflecting customary international law.⁴¹⁵ EAC member states may not also avoid this responsibility.

⁴⁰⁷ Tanzania National Energy Policy (2003) para 5.7.2 and GTZ Eastern Africa Energy (n 56 above)

⁴⁰⁸ Ottinger (2005) 120

⁴⁰⁹ Ibid.

⁴¹⁰ Bradbrook and Wahnschafft (2005) 181-201

⁴¹¹ (1939) 33 AJIL 182 and 35 AJIL 684; 1931-1941 3 UN RIAA 1905

⁴¹² (1941) 35 AJIL 684 at 716, rreported in Bradbrook and Wahnschafft (2005) 184

⁴¹³ 1972 Stockholm Declaration on the Human Environment

⁴¹⁴ Rio Declaration on Environment and Development

⁴¹⁵ Bradbrook and Wahnschafft (2005) 185

Article 5 of the statement of principles requires that all state energy policies are consistent with sustainable development, implying the respect for the right to a clean and healthy environment.⁴¹⁶ As already seen, EAC energy policies more or less echo the same words; it is the implementation that remains to be seen.

5.3.8. Sustainable Consumption

In 1999, the United Nations General Assembly amended its Guidelines for Consumer Protection to include sustainable consumption. The Guidelines put the promotion of sustainable consumption as one of the principle objectives of consumer protection (cl. I(h)). Moreover, the promotion of sustainable consumption is required to be one of the features of a strong consumer protection policy which all governments should develop and maintain (cl. II.3(g)). “Energy is specifically included as an area of consumer concern.”⁴¹⁷

For the multilateral treaties, only the UN Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol has indirect, albeit far-reaching implications for energy consumption patterns.⁴¹⁸ EAC countries need to adhere to these patterns in their energy policies. It is also necessary for the public to be aware of and understand the environmental impacts of energy production and consumption. Education can help to influence consumer choices.⁴¹⁹ Education of the EAC masses through newspapers, radio, television, seminars, workshops and integration of energy studies in the curricula, should be part of the strategy that the EAC Energy Policy will adopt.

In general, the EAC could adopt regulations, financial stimulatory measures, and educational reforms. Regulations ensure that minimum levels of reforms or standards are achieved, and once not achieved, the defaulter may be penalised. To be effective, regulations need to be supplemented by financial stimulatory measures, such as, investment allowances, tax deductions for investment costs, and special grants or tax concessions for expenditure on investment, R&D. “The combination of regulations and stimulatory measures has been referred to as the ‘carrot and stick’ approach to reform, with regulations (the stick) being supplemented by financial incentives

⁴¹⁶ Bradbrook and Wahnschafft (2005) 185

⁴¹⁷ Ibid. 192

⁴¹⁸ Mak K-N and F Soltau (2005) 212

⁴¹⁹ Bradbrook and Wahnschafft (2005) 192

(the carrot). This would appear to be the ideal combination.”⁴²⁰ Education would be a necessary addition to regulation so that the consumers are made aware of the correct course of action.

5.4. Conservation of Energy

Conservation of energy falls squarely within the requirements of energy sustainability not only for the future generation, but also for future use by the present generation. Most of the measures and standards proposed in this Chapter aim at achieving energy efficiency, and at the same time conserving energy. For that matter, not all EAC energy policies pay special and distinct attention to the conservation of energy. Nonetheless, Tanzania’s National Energy Policy and Uganda’s Energy Policy specifically outline the requirements for energy conservation. Rwanda’s Policy borrows similar wording from that of Tanzania.⁴²¹

Adhering to the measures and standards advocated above, would bring about improvements in energy efficiency, which in turn will have significant savings on energy use and cost. Energy efficiency and conservation, therefore, must be pursued consistently. Energy audit is an important tool that helps to indicate energy use patterns and proposes measures to achieve energy savings.⁴²²

5.5. Conclusion

The imperatives for sustainable energy are general measures and standards that EAC countries must adhere to as a body so as to attain sustainable energy and, therefore, sustainable development. The obligations that EAC states have are both legal and ethical. EAC countries cannot run away from these obligations. Instead, the EAC should put its efforts together and effectively carry out its duty towards the environment.

⁴²⁰ Bradbrook and Wahnschafft (2005) 193

⁴²¹ See Tanzanian National Energy Policy (2003) para 5.1, and for Rwanda GTZ Eastern Africa Energy (n 56 above)

⁴²² Tanzanian National Energy Policy (2003) para 5.1

Chapter Six

Summary, Conclusions and Recommendations

6.1. Summary of Arguments

This study was initiated with the primary aim of proposing trade and investment policies and strategies in sustainable energy that EAC countries should pursue in order to achieve economic development. The specific aims of the study as set out in Chapter One included first to analyse the energy trade policies and strategies in the EAC, identifying the impediments to trade and suggesting ways of enhancing the economies of scale. This was done in Chapters Two and Three. Chapter Two presented and analysed energy policies and strategies, and included the challenges that the policies face. The overall suggestion at the end of this Chapter was to harmonise energy policies for the sake of achieving sustainable development. Chapter Three, in turn, discussed the trade policies and options for EAC countries and it concluded with a call for a uniform approach.

The second specific aim was to study and determine the policies, strategies and best practices that EAC countries, collectively need to adopt to make the EAC a viable and credible energy investment destination. This was the major focus of Chapter Four, which raised a number of issues that must be taken into consideration if the EAC is to attract investment in the energy sector. The need to invest in renewable sources of energy as alternatives to the modern commercial energy sources was highlighted in this Chapter. The overall recommendation was again a regional investment agreement, policy or code for the EAC.

The third aim was to examine the sustainability of energy in the EAC and suggest ways to promote sustainable energy use. Throughout the study, an examination, assessment and analysis of the sustainability of energy in the EAC was done. More specifically, Chapter Five focused on suggestion ways of promoting sustainable energy use. Again, harnessing efforts to achieve sustainable energy as a region was the major recommendation in Chapter Five.

The overall conclusion of this study is that a sustainable energy policy must preserve an appropriate balance between energy demand and supply, that is, issues surrounding trade and investment in energy resources, as well as a consideration for the environment. Sustainability also requires agreement of the various policies concerned.

Throughout this paper, therefore, the importance of a single EAC energy policy with consistent national energy policies has been highlighted, yet the EAC is still far from it. One main reason for this may be that “it is only very recently that connections between energy and sustainable development have been emphasised globally”.⁴²³ Similarly, as Worika states:⁴²⁴

The regional and sub regional agreements currently in place were never intended to govern sustainable energy needs. The provisions of these agreements are too general and broad to be of any real significance. A pan-African policy instrument that focuses attention on sustainable energy and environmental aspects of such energy projects could set guidelines, prescribe standards, and provide an overall framework for the sustainable management of Africa’s vast energy resources, while using existing institutions as continental, sub regional, and national levels for the effective implementation of policy goals.

Similarly, this study recommends a single energy policy for the EAC. Such a policy must, therefore, set out a stable, consistent, transparent, and non-discriminatory framework for sustainable energy regulation, and at the same time strengthen institutional capacities to implement and enforce this regulatory regime.⁴²⁵

Once there is a policy, the laws should reflect its concerns. The multiple fragmentary energy laws in each of the countries in the EAC, which laws are not based on any particular overarching energy policy, is one of the explanations why such laws are not properly implemented, and why there is a major problem of access to sustainable energy in the EAC. An appropriate legal framework is also a precondition for maximising investment opportunities in the energy sector, as it would provide clear rules for all stakeholders in the energy market, clearly define rights and obligations of each, and strike a balance between protecting business and investor interests on the one hand, and the general public and consumers on the other.⁴²⁶

6.2. Conclusions and Way Forward

“Energy is the life-blood of development.”⁴²⁷ Accordingly, there is a need to link the energy policy with other policies, plans and strategies of other sectors of the economy that aim at achieving sustainable development. For example, energy supply is part of the poverty eradication

⁴²³ Worika (2005) 356

⁴²⁴ Ibid.

⁴²⁵ Ibid. 358

⁴²⁶ Ibid. 369

⁴²⁷ Uganda Energy Policy (2002) Part 6

process. Consequently, such programs as for poverty eradication, and sectors, such as, transport, manufacturing, agriculture, forestry, health, education, water and ICT, must pay special attention to energy. This is not yet happening in the EAC, where in most plans for the above sectors, energy “is simply placed within the recurrent budget, sometimes under miscellaneous, sometimes with other incidentals or incorporated in contingencies”.⁴²⁸

The idea of a single regional energy policy, strategy and legislation is neither new nor impossible as it has happened elsewhere. A good example is the European Union’s Energy Charter Treaty which “aim is to create a legal framework that will encourage the development of a secure international energy supply through liberalised trade and investment among member states”.⁴²⁹

6.3. Recommendations

Energy is a major player in achieving sustainable development, and the link between energy use and economic development, social equity, and environmental protection indicates that there is need to transform the current energy system into sustainable energy. The major recommendation is thus that of achieving a single policy to govern trade and investment issues in sustainable energy for the EAC. The new energy policy must take into consideration the other sectors of the economic and social life of the people. Stronger links need to be made between the energy sector, trade and investment sectors, and the other sectors of the economy. Each sector can enrich and be enriched by the other.

In order to achieve this, there is need to reform the market and mobilise investment in order to improve accessibility to energy, energy efficiency and affordability. Accelerating economic growth and assisting those with the lowest income to become wealthier, is the best way to ensure that a growing number of people will be able to afford commercial energy. This requires increased reliance on the market, while addressing cases of market failure through market reforms.⁴³⁰ Market reforms may be undertaken through liberalisation, trade, and privatisation, to open up energy service (within effective non-political regulatory frameworks) to undistorted

⁴²⁸ Arvidson A & M Nordström (n 31 above)

⁴²⁹ Salacuse JW ‘Towards a Global Treaty on Foreign Investment: The Search for a Grand Bargain’ in Horn N & S Kr II (eds) *Arbitrating Foreign Investment Disputes* (2004) 77-78

⁴³⁰ ICC Energy Committee ‘Energy for Sustainable Development: Business Recommendations and Roles’ [Online] Available at: <http://www.iccwbo.org/uploadedFiles/ICC/policy/environment/Statements/energy.pdf> Accessed 22/03/2009.

price signals, international trade and investment. Both the power sector and the petroleum sector need major reforms to enhance access to energy and security of supply.⁴³¹

Amendments to and reforms of energy laws should continue and especially take into account the accessibility, reliability and affordability of sustainable energy. Access to rural energy services and access to energy by the poor in general should be placed at the forefront of the region's development framework. High capital expenditures and recurring costs, irregular incomes, lack of access to credit, lack of legal residential status, and lack of formal legal assets for collateral often prevent the poor from obtaining energy services. Innovative financing and microfinance institutions can be used to assist the poor to access energy for sustainable development.⁴³²

In addition, energy should be used more efficiently and the conservation of energy should be promoted in order to ensure energy security. Energy security can also be enhanced by obtaining more energy from alternative renewable sources. Correspondingly, it is necessary to balance the development of new and renewable energy sources and advanced energy technologies. There is, therefore, need for more specific and detailed legislation regulating the use of renewable sources of energy particularly biofuels which constitute a very high percentage of energy consumed in the region.

The protection of public health and the environment must always be part of the objectives of the energy policy. These will necessarily require energy conservation and efficiency in order to ensure direct environmental benefits.⁴³³ Protection of public health and the environment should also be required of foreign investors that the EAC needs to attract to the energy sector.

In order to attract investment, a basic framework to ensure security of the investor and predictability of the investment must be in place. This would involve ensuring political and economic stability; avoiding unnecessary intervention; and the presence of "a functioning legal framework and process, security of property and persons, enforceability of contracts, and reliable dispute settlement frameworks".⁴³⁴ Other basic requirements include having sound economic and financial frameworks, such as, currency convertibility, freedom to remit dividends and other

⁴³¹ Johansson (2005) 51

⁴³² GFSE 'Regional initiatives to increase energy access: the case of the East African Community' (2006) [Online] Available at: http://www.gfse.at/fileadmin/dam/gfse/gfse%206/pdf/EAC_GFSE-6_Briefing_Paper.pdf Accessed 30/03/2009

⁴³³ ICC Energy Committee (n 430 above)

⁴³⁴ Ibid.

investment proceeds, rational price, non-distorting tax and subsidy policies, and a competent and impartial regulatory regime; fundamental business ethics; and capacity to supply technical skills, goods and services, through the easy movement of goods and people.⁴³⁵

In addition, education, R&D, together with the training of skilled personnel in the energy sector are indispensable. Public awareness and participation should also be a major focus.⁴³⁶ Similarly, advocacy and lobbying should be used “to create a space for negotiations and debates and to illustrate the role of improved access to energy in promoting growth and social development”.⁴³⁷ The EAC Secretariat and an Energy Commission if formed should play a key role in the advocacy and in guiding the states to the desired goal of sustainable energy.

The idea of an Energy Commission as exists in Ghana to prescribe technical and operational practice rules for those licensed to refine, store, transport, market, and sell petroleum products,⁴³⁸ could as well be adapted in the EAC.

Finally, the ministries of energy, trade, investment, environment and related matters should come together and find a way of harmonising their policies, strategies and laws, taking into consideration the similar goals that they all have: using sustainable energy to achieve sustainable development. Adhering to these recommendations in addition to those given throughout the study will go a long way in enhancing sustainable energy for sustainable development.

⁴³⁵ ICC Energy Committee (n 430 above)

⁴³⁶ Johansson (2005) 51

⁴³⁷ ICC Energy Committee (n 430 above)

⁴³⁸ Worika (2005) 362

Bibliography

Books

- August R *International Business Law: Text, Cases, and Readings* 3 ed (2000) New Jersey: Prentice-Hall, Inc.
- Bradbrook AJ, R Lyster, RL Ottinger & W Xi (eds) *The law of energy for sustainable development* (2005) New York: Cambridge University Press.
- Davis DH *Energy politics* 2 ed (1978) New York: St. Martin's Press.
- Horn N & S Krill (eds) *Arbitrating Foreign Investment Disputes* (2004) The Hague: Kluwer Law International.
- Kamminga MT & ZZ Saman *Liability of multinational corporations under international law* (2000) The Hague: Kluwer Law International.
- Manby B *The price of oil: Corporate responsibility and human rights violations in Nigeria's oil* (1999) New York: Human Rights Watch.
- Marion JB *Energy in perspective* (1974) New York: Academic Press.
- Muchlinski P, F Ortino & C Schreuer (eds) *The Oxford handbook of international investment law* (2008) New York: Oxford University Press.
- Muchlinski PT *Multinational enterprises and the law* 2 ed (2007) New York: Oxford University Press.
- Ottinger RL, N Robinson & V Tafur (eds) *Compendium of sustainable energy laws* (2005) New York: Cambridge University Press.
- Pauwelyn J *Conflict of norms in public international law. How WTO law relates to other rules of international law* (2003) Cambridge: Cambridge University Press.
- Ruhweza A & M Masiga *An inventory of initiatives/activities and legislation pertaining to Ecosystem Payment Schemes (EPS) in Uganda* (2005) Kampala: Prepared for Forest Trends.
- Sornarajah M *The international law on foreign investment* (1994) Cambridge: Cambridge University Press.

Sornarajah M *The international law on foreign investment* 2 ed (2004) New York: Cambridge University Press.

Tietenberg T *Environmental and natural resource economics* 4 ed (1996) New York: Harper Collins College Publishers.

Trebilcock MJ & R Howse *The regulation of international trade* 3 ed (2005) London: Routledge.

UN-Energy/Africa *Energy for Sustainable Development: Policy options for Africa* (2008) New York: UN-Energy.

World Commission on Environment and Development *Our common future* (1987) Oxford: Oxford University Press.

Articles

Abidde SO 'Henry Okah: In search of peace and justice in the Niger Delta' (2008) *The African Executive*

AFREPREN 'Research and policy linkages in the formulation of energy policy in Tanzania' (2004) [Online] Available at: www.afrepren.org/project/gdn/GDN%20Tanzania%20Proceedings.pdf Accessed 08/10/2008

Barrett L 'Niger delta: the true story' (January 2008) *New African* 12-20

English RD 'Energy in the NAFTA: free trade confronts Mexico's constitution' (1993) *Tulsa Journal of Comparative and International Law* 1-32

Helm D 'The assessment: European networks-competition, interconnection and regulation' (2001) 17:3 *Oxford Review of Economic Policy* 53

Juhasz A 'The WTO's new issues: investment, government procurement, competition policy and trade facilitation' [online] Available at: <http://www.ifg.org/pdf/cancun/issues-WTONewissues.pdf> Accessed 06/10/2008

Leeks A 'The relationship between bilateral investment treaty arbitration and the wider corpus of international law: the ICSID approach' (March 2007) *University of Toronto Faculty of Law Review* [Online] Available at: www.highbeam.com/doc/1G1-170279108.html Accessed 30/09/2008

- Lobe J 'NGOs organize against proposed WTO investment agreement' (2003) [Online]
Available at: <http://www.commondreams.org/cgi-bin/print.cgi?file=/headlines03/0623-02.htm> Accessed 30/09/2008.
- Manaster KA 'An introductory analysis of energy law and policy' (1982) *Santa Clara Law Review* 1151.
- Mosoti V 'The New Partnership for Africa's Development: Institutional and Legal Challenges of Investment Promotion' (2004) 5 *San Diego International Law Journal* 145-178
- Nash SE 'Collecting overcharges from the oil companies: the department of energy's restitutionary obligation' (1980) *Stanford Law Review* 1039.
- Palacio J 'California's electricity crisis' (2001) 17 *Oxford Review of Economic Policy* 33
- Pauwelyn J 'The role of public international law in the WTO: How far can we go?' (2001) 95 *A.J.I.L.* 535.
- Pelkmans J 'Making network markets competitive' (2001) 17:3 *Oxford Review of Economic Policy* 74.
- Raghunathan SR 'International law on foreign direct investment' [Online] Available at: www.randr.in/RAndRDir/Articles/BILATERALINVESTMENTTREATIES.pdf. Accessed 01/10/2008.
- Sacerdoti G 'Bilateral treaties and multilateral instruments on investment protection' (1997) 269 *Recueil des Cours* 251-460.
- Salacuse JW & NP Sullivan 'Do bits really work? An evaluation of bilateral investment treaties and their grand bargain' (2005) 46 *Harvard International Law Journal* 67.
- Selevan *et al* 'Concentrations of lead and delayed puberty in girls' (2003) *The New England Journal of Medicine* 348: 16 – 21.
- Sforza-Roderick M, S Nova & M Weisbrot 'A concise guide to the multilateral agreement on investment supporters' and opponents' views' [Online]. Available at: <http://www.globalpolicy.org/socecon/bwi-wto/maimia/guide.htm> Accessed 30/08/2008.

Sornarajah M 'The clash of globalisation and the international law on foreign investment' (2002) [Online] Available at: www.carleton.ca/ctpl/pdf/papers/sornarajah.pdf. Accessed 30/09/2008.

Trollip H 'Global energy security south african energy policy & g8 petersburg declaration on global energy security' (2007) [Online]. Available at: http://www.sarpn.org.za/documents/d0002771/SA_energy_security_FES_Aug2007.pdf. Accessed 08/10/2008.

WTO Analytical Index: GATT 1994 [online] Available at: http://www.wto.org/english/res_e/booksp_e/analytic_index_e/gatt1994_07_e.htm#article20B Accessed 06/10/2008.

Papers and Reports

Balmaceda M *EU Energy Policy and Future European Energy Markets: Consequences for the Central and East European States* (2002) Arbeitspapiers, Mannheimer Zentrum fuer Europaeishce Sozialforschung, No. 42.

Defilla S *Electricity markets in Europe – moving towards integration* (2002) Russia/Central Europe Executive Guide.

Destar MG *Legal issues in international agricultural trade: The evolution of the WTO Agreement on Agriculture from its Uruguay Round origins to its Post-Hong Kong directions: FAO legal papers online* (2006) Available at: www.fao.org/legal/prs-ol/lpo56.pdf Accessed 13/08/2008.

Drabek Z A *Multilateral Agreement on Investment: Convincing the Sceptics* (1998) WTO, Staff Working Paper.

Moltke K A *Cotonou Investment Agreement* (2003) International Institute for Sustainable Development Report for the Commonwealth Secretariat.

National Environment Management Authority *State of the environment report for Uganda* (2004/05) Kampala: NEMA.

National Environment Management Authority *State of the environment report for Uganda* (2006/07) Kampala: NEMA.

Rwandese Authorities in Collaboration with the Staffs of the International Monetary Fund and the World Bank (1999) *Rwanda Enhanced Structural Adjustment Facility Policy Framework Paper, 1998/2000–2001/02*.

The Environmental Law Resources Centre ‘Guidelines on investigation and prosecution of environmental crimes’ March 2005.

UNEP *Kenya: integrated assessment of the energy policy: with focus on the transport and household energy sectors* (2006) [Online]. Available at:
www.unep.ch/etb/areas/pdf/Kenya%20ReportFINAL.pdf Accessed 08/10/2008.

United Nations Economic Commission for Africa *Africa and the Monterrey Consensus: Tracking Performance and Progress, Economic Report on Africa* (2008) [Online] Available at: www.uneca.org Accessed 01/03/2009.

United Nations Economic Commission for Africa *Assessing regional integration in Africa: ECA policy research report* (2004) [Online] Available at: www.uneca.org Accessed 31/10/2007.

United Nations *Report of the World Summit on Sustainable Development* (2002) Johannesburg, South Africa, A/CONF.199/20.

Newspaper Articles

Baguma R ‘Why is Bunyoro demanding a share of oil money?’ (May 02 2009) *Saturday Vision* 11.

Buwembo J ‘Love your neighbour, yes, but don’t sell off your oil reserves’ (January 14-20 2008) *The East African* 14.

Editor ‘Investigate status of national fuel reserves’ (January 24 2008) *Daily Monitor* 10.

Mbogo S ‘Kenyan firms lose out on carbon emissions trading’ (2009) *Business Daily – Africa* [online] Available at:
http://www.bdafrica.com/index.php?option=com_content&task=view&id=12442&Itemid=37 Accessed 03/05/2009.

Museveni Y ‘State of the nation address’ (June 8 2007) *Daily Monitor* 3-4.

Obore C & T Butagira 'Ugandan leader "rewards" royalists in cabinet reshuffle' (2009) *BBC Monitoring Africa* [online] Available at:
<http://www.rasbicawards.com/Newsaspx?id=126658600&IQ=government> Accessed 09/05/2009.

Policy Documents

Arvidson A & M Nordström 'Tanzania energy sector policy overview paper' (2006) [Online] Available at:
www.enable.nu/publication/D_1_7_Tanzania_Energy_Policy_Overview.pdf Accessed 08/10/2008.

Department of Minerals and Energy 'Energy efficiency strategy of the Republic of South Africa' (2005) [Online] Available at:
http://www.dme.gov.za/pdfs/energy/efficiency/ee_strategy_05.pdf Accessed 15/10/2008

International Monetary Fund 'Rwanda enhanced structural adjustment facility policy framework paper, 1998/2000–2001/02' (1999) [Online] Available at:
<http://www.imf.org/external/np/pfp/1999/rwanda/index.htm>. Accessed 27/08/2008.

Ministry of Energy and Mineral Development 'The renewable energy policy for Uganda' (2007) [Online] Available at:
<http://www.energyandminerals.go.ug/EnergyDocuments/RENEWABLE%20ENERGY%20POLIC9-11-07.pdf> Accessed 08/10/2008.

Ministry of Energy and Mineral Resources 'The energy policy for Uganda' (2002) [Online]. Available at: www.energyandminerals.go.ug/EnergyPolicy.pdf Accessed 08/10/2008.

Ngigi, A & D Macharia 'Kenya energy sector policy overview paper' (2006) [Online]. Available at: www.enable.nu/publication/D_1_7_Kenya_Energy_Policy_Overview.pdf Accessed 08/10/2008.

Sengendo M 'Policy suggestions for Uganda' (2005) [Online] Available at:
<http://www.hedon.info/docs/SparknetPoliciesUganda.pdf> Accessed 08/10/2008.

Other Website Sources

African Union 'Consultancy for the development of a common investment strategy for Africa' (2008) [Online] Available at: <http://www.africa-union.org/root/au/Consultancy.htm> Accessed 10/07/2008.

EAC Home Page: <http://www.eac.int/> Accessed 10/09/2008.

Eastern Africa Business Council 'Business opportunities of energy sector in Burundi' (2007) [Online] Available at: www.renewableseastafrica.de/media/14dedf9e805e286 Accessed 08/10/2008.

Eastern Africa Business Council 'Business opportunities of energy sector in Rwanda' (2007) [Online] Available at: http://www.renewableseastafrica.de/uploads/media/1210_ReportRwanda.pdf Accessed 08/10/2008.

Electrogaz 'Investment opportunities in the Rwandan energy sector' (n.d.) [Online] Available at: http://www.ruralpovertyportal.org/english/regions/africa/rwa/agriculture_in_rwanda/CDRom/reports/donors/investmentO.doc Accessed 12/09/2008.

GFSE 'Regional initiatives to increase energy access: the case of the East African Community' (2006) [Online] Available at: http://www.gfse.at/fileadmin/dam/gfse/gfse%206/pdf/EAC_GFSE-6_Briefing_Paper.pdf Accessed 30/03/2009.

GTZ Eastern Africa Energy 'Energy Resource' [Online] Available at: http://regionalenergy-net.com/index.php?option=com_content&task=view&id=146&Itemid=107&limit=1&limitstart=2 Accessed 17/01/2009.

GTZ Eastern Africa Energy 'Energy Resource' [Online] Available at: http://regionalenergy-net.com/index.php?option=com_content&task=view&id=146&Itemid=107&limit=1&limitstart=5 Accessed 17/01/2009

GTZ Eastern Africa Energy 'Overview of the energy sector and contribution to national economy' [Online] Available at: http://regionalenergy-net.com/index.php?option=com_content&task=view&id=136&Itemid=89 Accessed 17/01/2009.

GTZ Eastern Africa Energy 'Overview of the energy sector and contribution to national economy' [Online] Available at: http://regionalenergy-net.com/index.php?option=com_content&task=view&id=116&Itemid=90 Accessed 17/01/2009.

GTZ Eastern Africa Energy 'Overview of the energy sector and contribution to national economy' [Online] Available at: http://regionalenergy-net.com/index.php?option=com_content&task=view&id=57&Itemid=92 Accessed 17/01/2009.

GTZ Eastern Africa Energy 'Overview of the energy sector and contribution to national economy' [Online] Available at: http://regionalenergy-net.com/index.php?option=com_content&task=view&id=60&Itemid=93 Accessed 17/01/2009.

GTZ Eastern Africa Energy 'Overview of the energy sector and contribution to national economy' [Online] Available at: http://regionalenergy-net.com/index.php?option=com_content&task=view&id=55&Itemid=94 Accessed 17/01/2009.

ICC Energy Committee 'Energy for Sustainable Development: Business Recommendations and Roles' [Online] Available at: <http://www.iccwbo.org/uploadedFiles/ICC/policy/environment/Statements/energy.pdf> Accessed 22/03/2009.

MIGA 'Regional Overview' [online] Available at: www.miga.org/region/index_sv.cfm?stid=1530 Accessed 15/05/2009.

Uganda Investment Authority 'Uganda: Your Investment Location' [online] Available at: http://www.unido-aaitpc.org/unido-aaitpc/new1/uganda/Uganda%20Engl%20Investment%20Climate%202006_7.pdf Accessed 11/05/2009.

United Republic of Tanzania 'Energy and Environment in Tanzania' (n.d.) [Online] Available at: <http://www.unep.org/GC/GCSS-IX/DOCUMENTS/Tanzania-1G-EnergyGen.doc> Accessed 28/08/2008.

International Instruments

African Convention on the Conservation of Nature and Natural Resources 1968

African Declaration on Co-operation, Development and Economic Independence (Development Declaration) 1973

Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa 1991

Cartagena Protocol on Biosafety to the Convention on Biological Diversity 2000

Convention of the African Energy Commission 2001

Convention on Biological Diversity 1992

Energy Charter Treaty 1994

General Agreement on Tariffs and Trade 1994

Lome Agreement 1989

Protocol of Montreal Relating to the Substances That Weaken the Ozone Layer 1987

Rio Declaration on Environment and Development 1992

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade 1998

Statute of the International Court of Justice 1945

Stockholm Convention on Persistent Organic Pollutants 2001

Treaty Establishing the African Economic Community 1991

Vienna Convention for the Protection of the Ozone Layer 1985

Bilateral Instruments

Accord Entre Le Gouvernement de la République du Burundi D'une Part, et le Gouvernement de _____, D'autre Part, Concernant L'encouragement Et La Protection Reciproques Des Investissements [online] Available at:

<http://www.unctad.org/sections/dite/ia/docs/Compendium/en/236%20volume%209.pdf>

Accessed 11/05/2009.

Agreement between the Government of the Republic of Finland and the Government of United Republic of Tanzania on the Promotion and Protection of Investments (2002) [online] Available at: http://www.unctad.org/sections/dite/ia/docs/bits/finland_tanzania.pdf Accessed 11/05/2009.

Agreement between the Government of the Republic of Uganda and the Government of the Republic of _____ on the Reciprocal Promotion and Protection of Investments (2003) [online] Available at: <http://www.unctad.org/sections/dite/ia/docs/Compendium//en/295%20volume%2012.pdf> Accessed 11/05/2009.

Agreement between the Government of the United Republic of Tanzania and the Government of the Italian Republic on the Promotion and Protection of Investments (2002) [online] Available at: http://www.unctad.org/sections/dite/ia/docs/bits/italy_tanzania.pdf Accessed 11/05/2009.

Agreement between the Government of the United Republic of Tanzania and the Government of the Kingdom of Denmark Concerning the Promotion and Reciprocal Protection of Investments (2002) [online] Available at: http://www.unctad.org/sections/dite/ia/docs/bits/denmark_tanzania.pdf Accessed 11/05/2009.

Agreement between the Government of the United States of America and the Common Market For Eastern And Southern Africa Concerning the Development of Trade and Investment Relations (2001) [Online] Available at: http://www.ustr.gov/assets/Trade_Agreements/TIFA/asset_upload_file367_7725.pdf Accessed 11/05/2009.

Agreement on Encouragement and Reciprocal Protection of Investments between the Republic of Kenya and _____ (2003) [online] Available at: <http://www.unctad.org/sections/dite/ia/docs/Compendium//en/294%20volume%2012.pdf> Accessed 11/05/2009.

Trade and Investment Framework Agreement between the East African Community and the Government of the United States of America (2008) [Online] Available at:

http://www.ustr.gov/assets/Trade_Agreements/TIFA/asset_upload_file413_15020.pdf

Accessed 11/05/2009.

Treaty between the Federal the Republic of Germany and the United Republic of Tanzania
Concerning the Encouragement and Reciprocal Protection of Investments (1965) [online]
Available at:
http://www.unctad.org/sections/dite/ia/docs/bits/germany_tansania_gr_eng.pdf Accessed
11/05/2009.

Treaty between the Government of the United States of America and the Government of the
Republic of Rwanda Concerning the Encouragement and Reciprocal Protection of
Investment (2008) [online] Available at:
http://www.ustr.gov/assets/Trade_Agreements/BIT/Rwa/asset_upload_file743_14523.pdf
Accessed 11/05/2009.

National Laws

Burundi

Code de commerce (Décret-loi n. 1-045 du 9 juillet 1993)

Code des sociétés privées et publiques (Loi 1-002 du 6 mars 1996)

Kenya

Arbitration Act Cap 4 of 1995

Electric Power Act Cap 11 of 1997

Energy Act Cap 12 of 2006

Environmental Management and Co-ordination Act (EMCA) of 1999

Foreign Investments Protection Act Cap 518

Geothermal Resources Act Cap 12 of 1982

Investment Disputes Convention Act Cap 522

Investment Promotion Act Cap 6 of 2004

Petroleum Act Cap 116



Petroleum Development Fund Act Cap 4 of 1991

Petroleum (Exploration and Production) Act Cap 308

Prevention of Fraud (Investments) Act, 1977

Restrictive Trade Practices, Monopolies and Price Control Cap 504

Trade Disputes Act Cap 234

Rwanda

Law No. 14/1998 Investment Code

Law No. 005/2008 On Arbitration And Conciliation In Commercial Matters.

Law No. 26/2005 Relating To Investment and Export Promotion and Facilitation.

Tanzania

The Environment Management Act 2004

The Rural Energy Act 2005

Uganda

Electricity Act 1999

National Environment Act Cap 153

Petroleum Supply Act 2003

The Investment Code Act Cap 92

The Petroleum (Exploration and Production) Act Cap 150

Trade (Licensing) Act Cap 101

Value Added Tax Act Cap 349

Subsidiary Legislation

The Public Enterprises Reform and Divestiture Statute (Vesting of Undertaking of Uganda Electricity Board) SI 27 of 2002.

The Public Enterprises Reform and Divestiture Statute (Vesting of Undertaking of Uganda Electricity Board) (No.2) SI 28 of 2002.



Case Law

AG for Canada v Cain [1906] AC 542

AMT v Zaire ICSID Case No. ARB/93/1

Asian Agricultural Products Ltd v Republic of Sri Lanka, ICSID Case No. ARB/87/3

Barcelona Traction Case, (1970) ICJ Repts. 3.

Rylands v Fletcher, (1868), L.R. 3 H.L. 330; [1861–73] All E.R.

Schmidt v Secretary of State for Home Affairs [1969] 2 Ch 149

The Social and Economic Rights Action Centre and the Centre for Economic and Social Rights v.

Federal Republic of Nigeria (October 2001) Reported in African Commission on Human & Peoples' Rights Communication 155/96 [Online] Available at:

<http://www.communitylawcentre.org.za/Socio-Economic-Rights/case-reviews-1/foreign-cases/the-social-and-economic-rights-action-centre-for-economic-and-social-rights-v-nigeria-communication-no-155-96-african-commission-on-human-and-peoples-rights/>

Accessed 12/07/2008.

United States – Import Prohibition of Certain Shrimp and Shrimp Products (Shrimp-Turtle Case)

WTO Appellate Body (1998) WT/DS58/AB/R

United States—Standards for Reformulated and Conventional Gasoline, WT/DS2/AB/R (Apr.

29, 1996)

Wena Hotels v Egypt ICSID Case No. ARB/98/4