

**IMPLICATIONS OF COAL MINING ON ENVIRONMENTAL RIGHTS OF
LOCAL COMMUNITIES IN THE MUI BASIN, KITUI COUNTY – KENYA**

UNIVERSITY OF NAIROBI

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DECLARATION

Declaration by the candidate

I **MERCY KHISA WANYONYI** do hereby declare that this is my original work and that it has not been presented nor is it currently being submitted for a degree in any other University. No part of this thesis may be reproduced without the prior written permission of the author and/or University of Nairobi.

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DEDICATION

I firstly dedicate this work to God for His grace.

To Stephen Kisaka, Francis, Dr. Reginalda, James, Rebecca, Paul and DanWanyonyi
for always being there for me;

Que Dios los bendiga.

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I would like to express my sincere gratitude to God for giving me the strength to complete this thesis. I also express my gratitude to each one who had a hand in the accomplishment of this enormous task. The completion of this thesis has depended to a large degree on support and encouragement from my supervisors, family, classmates, colleagues and friends.

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ABSTRACT

Article 42 of the Constitution guarantees a “clean and healthy environment.” This right also implies rights to life, social and economic rights, rights to adequate and acceptable food and water, the absence of hunger, entitlement to the best possible health, property rights and the rights of marginalized peoples and minorities.

With the planned coal mining project in Mui Basin, Kitui County, the entitlement to a pristine, nurturing environment pursuant to Article 42 will be under threat from air and water pollution, and solid waste disposal from the mining project. This study sought to examine how the environmental rights of local communities have been protected by the existing regulatory framework; local communities’ knowledge, attitudes and perceptions from coal mining in Mui Basin, the gaps, if any in the enforcement of environmental rights of Mui Basin residents, and whether environmental rights will be protected from the anticipated coal mining project in the Mui basin. In a simple sampling procedure, one hundred and fifty households, randomly identified, were interviewed using a semi-structured questionnaire. The findings presented in the study show that the environmental rights of local communities are likely to be breached by the anticipated coal mining. Effective monitoring by National and County governments and state agencies to ensure mining is carried out according to the law, thus protecting environmental rights of local communities and mitigating the adverse environmental impacts of the project on them. Further, engagement residents also required to promote sustainable development.

Keywords: Environmental rights, Community, Coal Mining, Legal Framework

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ACRONYMS

CASELAP: Centre for Advanced Studies in Environmental Law and Policy

CCS: Carbon Capture and Storage

CESCR: Committee on Economic, Social and Cultural Rights

CO₂: Carbon dioxide

EMCA : Environment Management Co-Ordination Act

EJNF: Environmental Justice Networking Forum

EMP : Environmental Management Plan

EIA: Environmental Impact Assessment

FSE : Federation for a Sustainable Environment

GDP : Gross Domestic Product

IIED :International Institute for Environment and Development

KCM : Kenya Chamber of Mines

KNBS: Kenya National Bureau of Statistics

KIPPRA: Kenya Institute for Public Policy Research and Analysis

MMSD Project: Mining Minerals and Sustainable Development Project

NO_x : Nitrogen oxides

NGO : Non-Governmental Organization

NEMA: National Environmental Management Authority

NLC: National Land Commission

UN: United Nations

WCED: World Commission on Environment and Development

SO₂: Sulphur dioxide

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CHAPTER ONE: INTRODUCTION

1.1 Background

The development of humankind generally revolves around the environment and the attendant natural resources. Among these are minerals, which are important as their sustainable exploitation can result in national economic and social progression.¹ Unfortunately, the mining process, in which minerals are removed from the ground, has historically been connected with human rights violations, and indeed people who have been harmed by mining worldwide have raised human rights questions that form a significant proportion of the issues addressed by civil society organizations.² The negative effects of mining jeopardize communities' environmental human rights, including a clean environment, entitlement to defend the environment, and access to justice, information and public participation.³ Previously, Kenya has concentrated its development efforts on agriculture, manufacturing, tourism and the service industry.⁴ In 2010,⁵ Kenya's income from mining was approximately 1% of GDP.⁶ from exporting titanium ore, fluorspar, gemstones, kaolin and soda ash.⁷ However, there has been an increase in commercial mining activity in Kenya, especially with the discovery of titanium ore reserves in Kwale County, estimated to triple Kenya's economy.⁸

The known mineral resources in Kenya include gold, currently produced mainly by small scale, independent extractors in western Kenya,⁹ and small amounts of copper,

1

Okidi, C. et al., Environmental governance in Kenya: Implementing the framework environmental law, East African Educational Publishers, Nairobi, 2008.

2 Reuben Gisore et al, Sustainable Mining in Africa: Standards as Essential Catalysts,2015.

3 Maria Adebawale et al ,Environment and Human Rights: A New Approach to Sustainable Development, International Institute for Environment and Development (IIED) ,May 2001.

4 KNBS (Kenya National Bureau of Statistics), Kenya Economic Report 2013: Creating an Enabling Environment for Stimulating Investment for Competitive and Sustainable Counties. Nairobi: KIPPRA.(2013).

5 <http://www.nation.co.ke/> on January 7th 2014.

6 Central Bank of Kenya, Kenya Monthly Economic Review: Nairobi, Kenya, Central Bank of Kenya,May,p.44,2011.

7 Ministry of Mining, Mining and Minerals Policy: The Popular Version, 2016.

8 Brown Meyer, Mining in Kenya – the start of a new era? April 2013.

9 <http://geology.uonbi.ac.ke/>.

silver and zinc. Other commercially viable minerals are fluorite, soda ash, and construction stones.¹⁰ There may be great potential value in unexplored minerals,¹¹ such as the discovery of coal in Mui Basin located in Kitui in 2012¹²; and the discovery of titanium ores in Kwale on the south-eastern coast. Indeed, the presence of coal in Mui Basin, had earlier on been sited in the 1950's, though no quantification or exploration was commenced.¹³ Kenya has also been a regular small scale producer of coloured gems and iron ore.¹⁴

Kenya spends a large proportion of its foreign exchange earnings on importing crude oil for domestic use. The Government of Kenya therefore puts a high priority in the exploration and development of indigenous energy sources as stated in the National Power Development Plan in order to curb the high expenditure on imported fuels.¹⁵ Efforts to explore the utilization of coal reserves for power generation and other uses with the aim of reducing the dependency on hydropower have been instituted. One of the first sites to be explored is the Mui Basin in Kitui County.¹⁶ Apart from Kitui, coal prospecting is also being done in Kwale and Kilifi, and there are currently 31 additional coal blocks which are being prepared for concessions.¹⁷ Currently coal is used as an energy source (alongside fuel oil) in manufacturing cement, and in steel working. On average Kenya uses 172,000 metric tonnes of coal annually, almost exclusively for industrial processes. Thus coal burning is under 1% of the cumulative annual energy usage in Kenya.¹⁸

Coal as an energy source has been known since ancient times. It gained prominence during the 19th century as the main fuel of the Industrial Revolution. Since then coal burning has decreased as petroleum and natural gas are used more. However, coal still

10 T.C. Davies & O. Osano, Sustainable mineral development: case study from Kenya, 2005.

11 Yager, T.R. The Mineral Industry of Kenya, in USGS ,2012 Minerals Yearbook. Washington: United States Geological Survey, 2012.

12 Ministry of Mining, 2016.

13 D.K. Kariuki et al, Alternative Energy Sources from Mui Basin in Kitui District, Kenya - A Case of Coal. Kenya Journal of Sciences Series A Vol. 13 No.1, 2008.

14 Munyiri, Policy Position Paper On The Proposed Amendments Of The Mining And Minerals Bill 2009.

15 Ndolo J.M. (2004): Coal Exploration Monthly Report, Ministry of Energy (Pg 4-9).

16 Ministry of Energy (2002): Mui Basin Coal Exploration Progress Report (Pg 3-11).

17 National Energy and Petroleum Policy,2015.

18 Eskom,

CoalPower,http://www.eskom.co.za/AboutElectricity/ElectricityTechnologies/Pages/Coal_Power.asp

accounts for 29.9% of the primary energy needs of the world, and 41% of electricity generated around the world depends on coal, and 70% of global steel production still relies on coal for heat. Cumulatively, global coal production increased to 7831 million metric tonnes in 2012, growing at an annual rate of 2.9%. The growth in coal demand has exceeded that of all other fuels between 2000 and 2010, due to increased demand from the world's five biggest coal consumers who are responsible for 76 per cent of the world's consumption.¹⁹ However, in 2016, global production of coal dropped by 6.2 per cent, the largest decline on record.²⁰

The Government of Kenya seeks to reduce its reliance on hydro-electricity, and started prospecting for coal, discovering 400 million metric tonnes of deposits in Mui Basin in Kitui County in 2012,²¹ in a land area of almost 500 square kilometres.²² The deposits were analyzed and proved to be light coal, with energy values varying between 16 and 27 Megajoules per kilogram.²³ From an economic standpoint, finding coal in Kitui is a welcome occurrence, as coal is a cheap and reliable energy source that can help Kenya to achieve its stated goal of attaining middle-income status by 2030.

A significant drawback of coal is that both its mining and use have numerous negative environmental effects, such as biodiversity loss, dust, soil erosion, noise pollution and water pollution.²⁴ Coal powered electricity generation is the biggest global source of human-created carbon dioxide CO₂ emissions. Indeed, coal burning is responsible for a third of all CO₂ emissions, which means that coal is the biggest driver of climate change. In 2013, “Coal was responsible for 44% of carbon emissions from fuel globally—more than oil (35%) and natural gas (20%). Coal releases more carbon dioxide than any other fossil fuel and coal mining is responsible for 8-10% of human-made methane emissions globally.”²⁵

19 <http://www.worldcoal.org/resources/coal-statistics/>

20 BP, Statistical Review of World Energy, June 2017.

21 Ministry of Mining (2016).

22 <http://geology.uonbi.ac.ke/node/1108>

23 <https://www.diakonia.se/globalassets/documents/diakonia/where-we-work/africa/kenya-2014-rapid-assesment-coal-mining-kitui.pdf>.

24 Climate Greenpeace briefing, The Environmental Impacts from Coal, New Zealand, January, 2005. 2 <http://www.worldcoal.org/coal-the-environment/>

25 Mongabay, “Mining the Heart of Borneo: coal production in Indonesia,” Commentary by Wendy Miles, Rut Dini Prasti H., and Kussaritano. 20 November 2013. Available at: <http://news.mongabay.com/2013/1120-miles-oped-indonesian-coal.html#ywI4Ogka9S92hJkI.99>

Apart from their effect on the climate, coal mining and coal burning power plants harm the environment by jeopardizing land use, harming health (respiratory diseases from air pollution) and soil and water pollution.²⁶ Specifically, coal mining disrupts the water table and pollutes ground water; leads to sinking of land above mines; disturbs the flow of rivers, which affects agriculture and other uses of water; pollutes land and water through disposal of mine tailings (mining wastes); damages the aesthetic value of the landscape; damage to infrastructure (through blasting) and long term ecological damage through acidification of ground water and rivers.²⁷

Air pollution from coal mining is mainly from coal and/or rock dust and gaseous pollutant.²⁸ Loading/offloading and transportation of coal, bad condition of roads and open burning of coal are largely responsible for air particulate and gaseous pollutants.²⁹

The major health, social and environmental consequences of mining overwhelmingly affect the communities in closest proximity to mines, who are often indigenous peoples, and whose livelihoods depend on the very natural resources (land, water, biodiversity) that are damaged by mining.³⁰ For instance, in South Africa, polluted run off from coal mines flows into rivers and streams. Air pollution from mines also causes morbidity and death. Cumulatively pollution from mines infringes people's entitlement to a nurturing environment, food, health, life and water.³¹

The aforementioned rights are protected by the Constitution of Kenya, under Articles 42, 60, 69 and 70. Other rights closely connected to environmental rights are life;³² social and economic rights, such as health, food and water;³³ property rights³⁴ and minority rights.³⁵

26 P. Asokan et al, Coal combustion residues—environmental implications and recycling potentials ,2004.

27 Shouguo MU et al, The Impact Of Disposal And Treatment Of Coalmining Wastes On Environment And Farmlandz,2007.

28 J. Muthama et al. / Africa Journal of Physical Sciences 2 (1) (2015) 60-72.

29 *Ibid.*

30 Karyn Keenan, Mining and Communities: Poverty Amidst Wealth, 2003.

31 Centre for Environmental Rights, Zero Hour: Poor Governance of Mining and the Violation of Environmental Rights in Mpumalanga, (May 2016) available at <http://cer.org.za/wp-content/uploads/2016/06/Zero-Hour-May-2016.pdf>.

32 Article 26 of the Constitution.

33 *Ibid.*, Article 43.

34 *Ibid.*, Article 40.

35 *Ibid.*, Article 56.

In addition, Article 69 of the Constitution imposes environmental duties on both the state and the citizens. Under Article 69, the state should guarantee sustainability in exploiting, using, managing and conserving environmental resources; it should maintain Kenya's tree cover at above 10%; it should enhance and protect patents, copyrights and trademarks in the biodiversity and the indigenous knowledge of local communities; it should enhance public engagement to manage, protect and to conserve the environment; it should directly protect biological diversity and genetic resources, it should set up environmental impact assessment systems; as well as methods to audit and to monitor the environment; it should proscribe any activities that are harmful to the environment, and it should use natural resources and the environment to benefit Kenya's people.

The coal mining project in Mui Basin, Kitui County, threatens entitlement to a pristine and nurturing environment due to air pollution, water pollution and solid waste disposal from mining.

1.2 Statement of the Research Problem

Coal is an extremely “dirty” fuel³⁶ because every step of its extraction and use, from mining, transportation, combustion for electricity generation or in industrial processes, and to the disposal of its wastes, coal pollutes air land and water.³⁷ Coal mining has a devastating aftermath, as land may subside above coal mines, the water table may be drastically changed, and run off water flowing out of coal mines may leak into water sources, polluting them with acid mine drainage. The aesthetic appearance of the landscape may be destroyed by large heaps of mining wastes (tailings). In addition, methane, a potent greenhouse gas, is released into the atmosphere during coal mining.³⁸

The coal deposits in Kitui are expected to boost energy production and move the country towards industrialization.³⁹ However, in parallel with the optimism and aspirations for the economic potential of a developing extractive sector, there are also concerns related

36 www.greenpeace.org

37 *Ibid.*

38 Mamurekli, M.: Removing Pyritic Sulphur and Trace Elements from UK Coal by Coal Beneficiation Techniques. Ph. D. Thesis, Nottingham University, 1997, pp. 312.

39 Charles Mwalimu, Kenya's Legal Framework on Mining, It's Adequacy in safeguarding the Social, Economic and Environmental Welfare of the Local Community in Mui Basin, 2013.

to the risks of adverse environmental impacts of the sector⁴⁰ which could lead to breach of or the likely violation or infringement of the entitlement of the local community to a pristine and nurturing environment contrary to Article 42.⁴¹

1.3 Research Questions

1. What are local communities' perceptions regarding the opportunities and challenges from coal mining in Mui basin?
2. To what extent does the current legal framework on mining protect the environmental rights of local communities in Kenya?
3. What are the mitigation measures required to protect the environmental rights of local communities in the mining sector in Kenya?

1.4 Objectives

1. To examine local communities' knowledge, attitudes and perceptions from coal mining in Mui Basin.
2. To assess the current regulatory framework with regards to the protection of the environmental rights of local communities in Kenya.
3. To assess the mitigation measures required to protect the environmental rights of local communities in the mining sector in Kenya.

1.5 Justification of the Study

This study draws its justification from different discoveries undertaken in the extractive sector in Kenya. These discoveries have raised excitement among Kenyans because they have potential to boost the economy of the country and improve welfare of communities. However, mining activities have potential to affect the environment and degrade ecosystems. It is better to consider balancing economic, social and ecological considerations to promote sustainable development in the sector.

Resource curse has trapped many African countries and people have become poorer due lack of effective mining legal framework, lack of proper benefit sharing regime, bad governance, corruption, and the absence of accountability and transparency. In Kenya, there is urgent need to come up with mechanisms which will protect the environmental

40 Institute for Human Rights and Business, State of Human Rights in Kenya's Extractive Sector,2016.

41 Article 42 of the Constitution of Kenya 2010.

rights of local communities in the mining sector to conform with 42 and the spirit of Article 69 of the Constitution.

This study is justified by the fact that Kenya must avoid tensions and conflicts due to the violation of local communities' environmental rights. These tensions can paralyze Kenya's political and socio-economic, stability. The study therefore makes a useful contribution in demonstrating how legal and institutional reform can inform sustainable administration of the mining sector and the protection of environmental rights.

1.6 Assumptions

It was assumed that some respondents would not cooperate well, since there were no payments to be made after the interviews.

1.7 Limitations

Some of the remote villages within the study area were inaccessible due to poor infrastructure. The study area also has a high level of illiteracy; therefore results relied on accuracy of the translator who accompanied the researcher for the field visits and collection of data.

1.8 Theoretical Framework

1.8.1 Theory of Sustainability

Sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”⁴² Two significant aspects of sustainability are recognizing long term consequences of economic growth and development trends on limited environmental resources; and an interest in the ability of future generations to receive and maintain a healthy environment, in terms of access to natural environmental resources.⁴³

Sustainable Development is not a static concept. Originally enunciated in the Brundtland Report, it was developed to include some subsidiary principles. These principles assign rights and duties to individuals and organizations in order to protect the environment.⁴⁴

42 World Commission on Environment and Development Our Common Future (the Brundtland Report), New York: Oxford University Press, 1987.

43 *Ibid.*

44 General Principles for further details. World Charter for Nature, 28 October 1982, Thirty-Seventh

Sustainable Development was originally conceived as a guiding principle for environmental protection, therefore it does not have the binding force (or language) of law. As a result, different international and domestic legal frameworks define Sustainable Development differently, although they share the same conceptual underpinnings. For instance, Principle 1 of the Rio Declaration states that: “Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.”⁴⁵

This is emphasized in Principle 3 of the Rio Declaration, as follows: “the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.”⁴⁶ In this manner, the Rio Declaration explains the scope of Sustainable Development without specifically defining it. It merely demonstrates the requirement for human development needs to balance with nature. This is clarified in Principle 4, which requires that “environmental protection should be an integral part of development,” for the purpose of achieving sustainable development.⁴⁷

Through the years, sustainable development has evolved into a legal principle that has connections with other legal principles in environmental law. As international environmental law continues to grow, sustainable development will eventually be established as core tenet of international law. This is similar to the manner in which the key features of the common law were developed. Currently, sustainable development is only recognized as a basic standard for collaboration between states, and it is not legally binding between states. This is largely due to the competing priorities of political expediency, economic interest and states' rights to self-determination.⁴⁸

Despite the differing perceptions of sustainable development, it is globally apparent that although the mining sector generates considerable wealth, this wealth has a significant development cost, in terms of harm to the environment and economic marginalization of communities, especially indigenous people. Due to the negative aspects of mining, there

Session, U.N. GAOR, U.N. Doc. .

45 <http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm>

46 *Ibid.*

47 *Ibid.*

48 Mar Campins-Eritja and Joyeeta Gupta, 2004: 251.

is a need for the mining sector to adopt new ideas and modes of operation, so that the wealth generated from mining can contribute to sustainable development for the communities in closest proximity to mines.⁴⁹

The mining sector has performed poorly in engagement with communities affected by mining projects. This is mostly due to the profit motive; there is little incentive to engage with communities close to mining operations. Indeed, in many cases the profit motive leads mining operations to exploit such communities, in the name of minimizing costs. Consequently, it is common for communities to distrust and to oppose mining developments. Sustainable development requires mining corporations to harmonize interests of neighbouring residents, including their environmental rights, with the interests of the corporation itself. Thus harm to the community should not be considered “collateral damage” or as “operational costs.” Sustainable development calls for mining operations to engage with communities based on mutual respect, so as to develop a “win-win” scenario, rather than viewing mining and environmental damage as a “zero-sum game.”⁵⁰

This applies directly to the issues in the Mui Basin. The present day inhabitants of Kenya as a whole stand to benefit from the extraction and exploitation of the coal reserves in the area. Indeed, it is conceivable that future generations of Kenyans will inherit some of these benefits, in terms of greater industrial and energy generation capacity. On the other hand, coal mining and burning has numerous detrimental effects on public health and the environment, which will affect both current and succeeding generations. Therefore the concept of sustainability has to be at the forefront of the coal extraction process, so that the benefits of natural resources can be enjoyed for as long as possible, while the long term disadvantages can be mitigated, as far as possible.

The current global environmental crises also pose challenges for the future. Therefore, the concept of sustainability is often phrased in terms of what current generations owe to future generations. Sustainability requires that current generations should sustain, as a bare minimum, that which future generations will need in order to sustain themselves.⁵¹

49 <http://www.cseindia.org>.

50 Institute for Studies in Industrial Development , Sustainable Development Emerging Issues in India’s Mineral Sector, 2012.

51 Barry, Brian. Sustainability and intergenerational justice. *Theoria*, 45, 43–65, (1997).

The ultimate purpose of sustainable development in the Brundtland Report, is to balance obligations to the present and the future. This is referred to as intergenerational equity, which is a subset of sustainability theory, and which is addressed in the following subsection.

The concept of sustainable development overlooks aspects of space, time and human nature.⁵² To redress these shortcomings, sustainable development has been re-interpreted using a five-dimensional conceptual framework.⁵³ Instead of perceiving sustainable development as an idea separate from daily reality, sustainable development has to be understood within the framework of space, time and humanity (or “Place, Permanence and Persons”). The five dimensions are explained as follows: Place consists of space (dimensions 1 – 3), Permanence (time, 4th dimension) and humanity (5th dimension). This framework is more effective in connecting sustainable development to day-to-day life.⁵⁴

With regards to the three dimensions of place/space, individuals perceive the environment as their immediate surroundings. Thus the term “environment” should be reinterpreted as “environments” to accommodate the views of people from different places.⁵⁵ Place/space is thus a social construct within which culture and a sense of belonging are developed. Conversely, cultures are understood as belonging to certain places. If a place is considered to be inseparable from the cultural and natural resources within that place, then it can be argued that policies promoting sustainable development cannot ignore local characteristics, limitations and opportunities.⁵⁶ However, in the absence of express discussion of time-related factors (time/permanence) then policies will over-emphasize the importance of today, while diminishing the importance of the future.

Thus the concept of place, although important, can only deal with the concept of intra-generational equity (using and maintaining resources to fulfil present day needs).⁵⁷ The concept of time (Permanence) refers to more than simply maintaining the current state of

52 Lucas Seghezzeo, *Environmental Politics*, Vol. 18 ,Iss. 4,2009.

53 *Ibid.*

54 *Ibid.*

55 Macnaghten, P. and Urry, J., *Contested natures*. London, Thousand Oaks, CA, and New Delhi: Sage Publications in association with Theory, Culture & Society, 1998.

56 Rootes, C., *Acting locally: the character, contexts and significance of local environmental mobilizations*. *Environmental Politics*, 16 (5), 722, 2007.

57 Zuideau ,*Territorial Equity and Sustainable Development*. *Environmental Values* ,16(2) 253,2007.

the environment. It also refers to change and improvement of the environment, therefore time/permanence is the concept underpinning inter-generational equity⁵⁸ (using and maintaining resources to fulfil present day and future needs). The dimension of time/permanence is where current actions should be evaluated for their effects on the future. Since it is human nature to want to leave a legacy for the future, often connected to a particular place, it is reasonable to state that the concept of place cannot be separated from the concept of time.⁵⁹

The fifth dimension of the proposed framework is humanity (persons). Most people have a sense of individual identity in both physical and spiritual terms,⁶⁰ closely related to seeking the meaning and nature of life.⁶¹ The fundamental problem of contemporary societies is not one of development or social deprivation. It is actually an individual problem of neglecting the personal, internal, spiritual life of each person, which leaves people feeling empty, without meaning or value. There is thus a need to connect modern life and pre-modern modes of living, to reinforce the future of humanity.⁶²

Fortunately, modern humans have not completely surrendered to the secular notion of society and reality, and they still possess some higher principles which guide both individual lives and the manner of running social institutions.⁶³ Therefore many people believe in the importance of interdependence between people and nature, interdependence between people, and the intrinsic value of all people.⁶⁴ This concept of humanity and the world supports the rights of minorities and citizens against political and economic interests that seek to repress them. Thus only individuals possessing values can create a change of consciousness that can prevent the authoritarian imposition of environmentally harmful policies.⁶⁵

58 *Supra* note 55.

59 *Ibid.*

60 *Ibid.*

61 Macnaghten, P. and Urry, J., *Contested natures*. London, Thousand Oaks, CA, and New Delhi: Sage Publications in association with Theory, Culture & Society, 1998.

62 Wilber, K., *The marriage of sense and soul. Integrating science and religion*. New York: Broadway Books, 1998.

63 Radford Ruether, R., A second look at secular theology, *The Journal of Religion*, 51 (3), 206, 1971.

64 Saravanamuthu, K., Emancipatory accounting and sustainable development: a Gandhian–Vedic theorization of experimenting with truth. *Sustainable Development*, 14, 234, 2006.

65 Dryzek, J.S., *Rational ecology, Environment and political economy*. Oxford and New York: Basil Blackwell Inc. 1987.

1.9 Conceptual Framework

It is increasingly evident that the wealth created by mining is accompanied by a substantial development cost, in terms of economic marginalization of communities and environmental degradation of the ecosystems which they rely on. These negative effects of the mining industry should be mitigated by innovative policies and procedures so that the benefits of mineral extraction will have sustainable outcomes for both mining corporations and local communities.⁶⁶

As previously mentioned, the mining sector is not well known for considering the interests of affected communities. The relentless search for profits means that environmental and social justice considerations are often relegated to afterthoughts. As a result, communities are often reluctant to accept mining projects in their vicinity, or are often outright hostile to them. Mining corporations should incorporate sustainable development by synchronizing their interests with those of the communities near their operations, with the long-term result that the mining organization, the community, and the environment benefit from the extraction process.⁶⁷

Environmental safeguarding and human rights are intertwined in a complex, mutually-reinforcing network. Both statutory and case law have established that respecting, guaranteeing and fulfilling human rights, at both domestic and international levels, is a prerequisite for preventing environmental destruction. Without protecting human rights, the environment will suffer as the needs of individuals and communities will be ignored. These are individuals and communities who would otherwise protect the environment and contribute to economic growth through their indigenous ecological knowledge. However, this can only occur if communities are consulted and made part and parcel of the mining process, by participating in making decisions about projects affecting them and their environment.⁶⁸

The damage of ecosystems is detrimental to human rights in the sense that degraded natural resources cannot supply the environmental goods (such as clean air, clean water, biodiversity) which many indigenous communities rely on. In addition, economic and

66 <http://www.cseindia.org>

67 Institute for Studies in Industrial Development , Sustainable Development Emerging Issues in India's Mineral Sector, 2012.

68 <http://www.unep.org/>

political policies have an impact in the social sphere, thereby such policies may either harm or help the environment, sustainable development and human rights. Therefore, failure to engage with local communities during mining projects, such as denying them access to relevant information or failing to consult with them, or subjecting them to forced displacement, are detrimental to both human rights and the environment. Alternatively, protecting the environment reinforces human rights by guaranteeing continuous, sustainable access to essential environmental goods and services.⁶⁹

⁶⁹ Ibid.

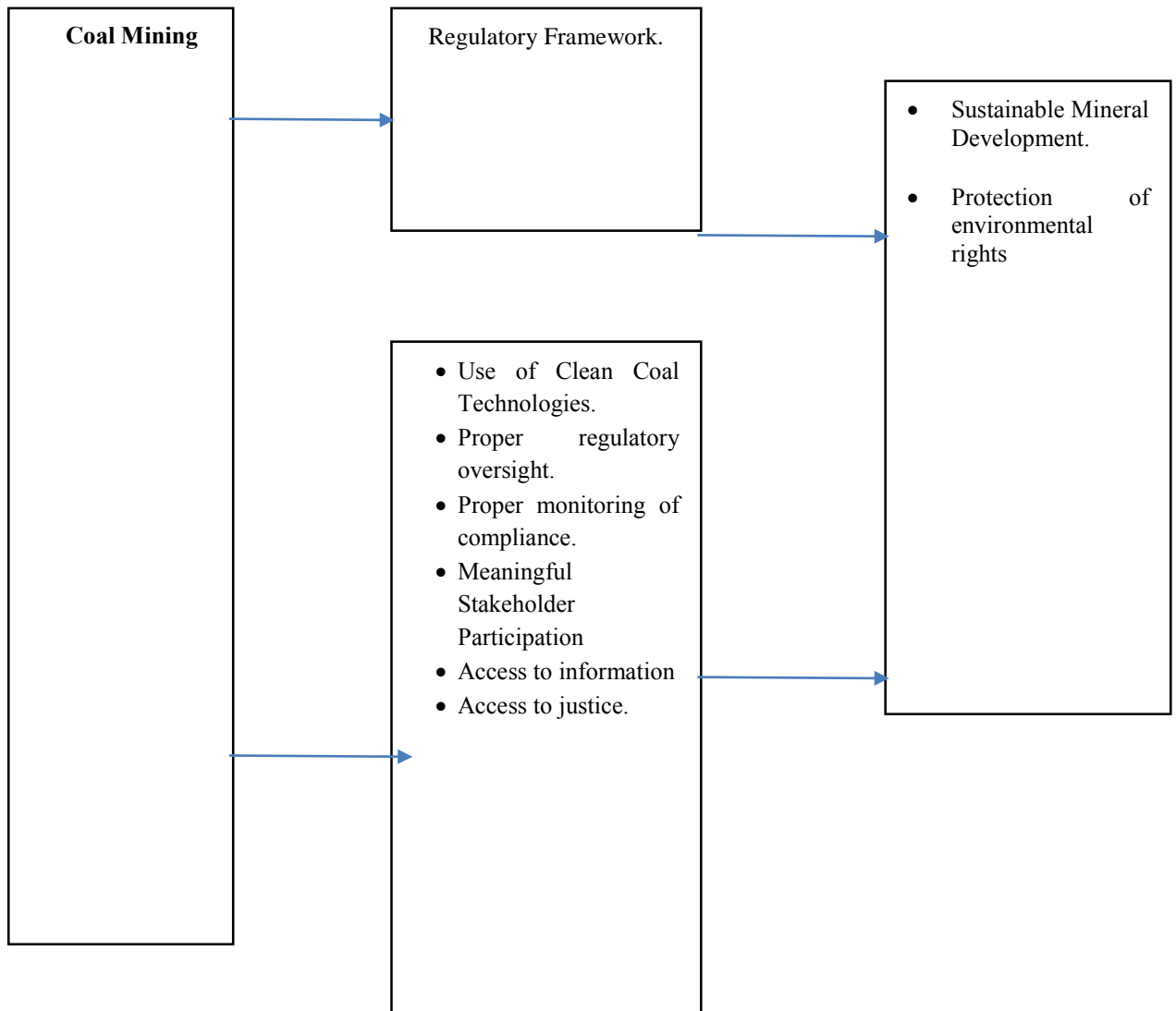
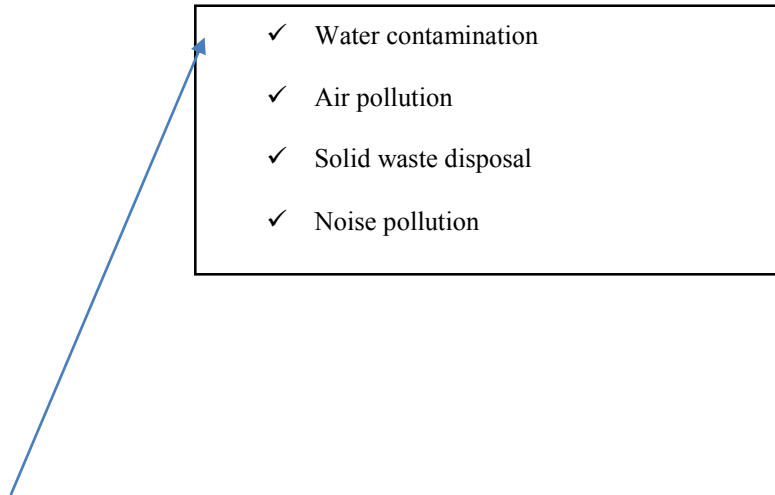


Figure 1: Conceptual framework

Source: Author

Regulations influences environmental rights of Mui Basin residents, as they set out the framework through which residents will be able to share in the benefits of mining, if at all, or how they will safeguard their environmental rights. The regulatory framework also provides the procedures for redressing grievances by making sure that the local communities can access relevant facts and knowledge regarding mining, and that they are involved in decision making i.e public participation and that there is a mechanism for dispute resolution if the local communities are dissatisfied. If such a framework is absent or inadequate, it will jeopardize the ability of local communities to attain their environmental rights.

Similarly, gaps in the protection of environmental rights of local communities influence the ability of such communities to realize their rights. This refers to the substantive law, as distinct from the regulatory framework, which is more procedural. In the absence of relevant laws specifically addressing the environmental rights of local communities, such as in the Mui Basin, there is a possibility that their environmental rights will be infringed, thereby affecting the dependent variable.

Thus through an effective regulatory framework, the mining companies or the private sector have an obligation to ensure they use clean coal technologies in order to limit the detrimental effects of coal mining on local communities which include the deposit of solid wastes, water contamination and air pollution among others. Further, the private sector will be obliged to keep local residents well informed as regards the mining project and take part in decision making.

Finally, when a local community is engaged with a mining project through a system of public participation, they are more likely to air their concerns, and to have these concerns addressed. This means that they are more likely to protect their environmental rights. On the other hand, local communities who do not have a system of public participation, they cannot engage with the leaders of the mining project, which creates an atmosphere of mistrust and suspicion, and may ultimately lead to the infringement of environmental rights.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Chapter Two is concerned with earlier findings about coal mining and environmental rights of local communities, and acknowledges the contribution made by scholarly publications (articles, seminar papers, policy documents, dissertations, theses, business journals, textbooks, newspapers and periodicals). This review will identify gaps in the existing literature which will lead to the development of recommendations for further study.

2.2 Mining and Environmental Regulation

While mining operations have potential for transforming economies and boosting the fiscal base of a country, they also raise fundamental environmental challenges including pollution which has a devastating effect on the environment.¹ Coal is a rock formed by deposition and intense compression of plant matter, over geological eons. It is extracted by open cast and shaft mining. In 2009 the world produced and consumed 7 billion metric tons of coal, 44 per cent of which was mined by China, followed by 14 per cent in the USA and 8 per cent in India.²

Currently some 37% of the electricity generated worldwide is produced from coal. In 1994, United States of America generated approximately 56 % of its electricity using coal. Coal-fired power plants are expected to generate 47% of the developing countries' electricity needs by 2030. The global capacity for generating electricity is expected to increase from “16,074 TWh (2002) to 31,657 TWh (2030),” a close to 100% increase.³ The developing countries will be tempted to use coal to fuel this increase in power generation, as coal is relatively cheaper than other fossil fuels. The World Energy Outlook⁴ has linked poverty to energy scarcity and that the world's poorest are also

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Collins Odote, Environmental implications of the extractives sector in Kenya: Challenges and way forward,,Strathmore University Press,2018.

2 BP Statistical Review of World Energy, June 2016.

3 TWh = Tera Watt hours. 1Tera Watt = 1 trillion (1,000,000,000,000) Watts.

4 ECOAL 52: World Energy Outlook 2004, World Coal Institute Vol. 52,2004.

deprived of modern energy services. Kenya imports over 100,000 metric tones of coal per annum; mainly for the cement production industry.⁵

Negative effects of mining are almost inevitable; however, in most cases they can be mitigated. When a mining project is in the planning stage, plans can be set up to ensure the least possible environmental impacts during the subsequent development and post-development stages of mining.⁶ The advantage of such mitigation measures is that they often result in minimizing business costs and also allow mining corporations to establish good working relationships with local communities, which will result in minimal conflict between the mine and its neighbours, which is also good for business in the long run.⁷

However, this is not always the case. In Australia for instance, mining corporations tend to place greater emphasis on operational health and safety within the organization than to minimizing the effects of mining on the community. Indeed, organizations only seem to be concerned with community engagement during the environmental impact assessment (EIA) stage.⁸

Once the mining project has been approved, mining corporations only concern themselves with the bare minimum of environmental protections (minimizing dust, noise, maintaining air quality) and tend to ignore the long term environmental effects of mining on neighbouring communities.⁹

Therefore, to ensure environmental protection, mining should be planned in detail, with all conceivable impacts considered and assessed, and mitigation measures suggested, to prevent a short term activity (mining) from having adverse long term effects (environmental degradation).¹⁰

The issue is that mining involves a lot of stages which usually begins from exploration and prospecting for mineral deposits, preparing and developing mines, expanding mines

5 Ndolo J.M., Mutunguti F.N., Wawiye F.O., and Ndogo J.M., Coal Exploration in Kenya, Ministry of Energy Communication, 2003.

6 Reuben Gisore et al, Sustainable Mining in Africa: Standards as Essential Catalysts, June 2015.

7 *Ibid.*

8 Brereton, D. and Forbes, P. Monitoring the Impact of Mining on Local Communities: A Hunter Valley Case Study. CSRM, 12-13,2004.

9 *Ibid.*

10 *Ibid.*

and eventually processing minerals. However, each of these stages has an adverse environmental impact.¹¹

These specific impacts include building roads to the site, mapping, surveying (sometimes using explosives), establishing the water table (which may involve drilling), cutting trees and vegetation, thereby increasing erosion and biodiversity loss, pollution of air, land and groundwater, especially by chemical and/or by-products from the mining process, all of which have negative effects on the social and environmental health of affected communities.¹² Hence, it is not wrong to assume that the mining process is inherently harmful to the environment, thus it is hard for mining not to cause destruction to the natural environment in one way or the other.

Coal is a dirty fuel, and all aspects of its mining, processing and use pollute land, water and air, thereby damaging ecosystems and posing human health risks, such as damaging immune and nervous systems, being a proximate cause of cancer, and leading to developmental and reproductive disorders.¹³ Further environmental damage from coal mining occurs in terms of acid mine drainage leaking into rivers and poisoning them, as well as increased carbon dioxide emissions. Although there is technology ('Clean coal') to minimize the effects of burning coal, it is currently neither efficient nor cost-effective.¹⁴

Apart from the previously mentioned effects of coal mining such as land subsidence and fluctuation in ground water levels, coal mining also turns the surrounding countryside into a black wasteland due to the accumulation of coal dust. Coal mining also produces methane, which is a major contributor to climate change.¹⁵ In addition, coal burning power plants need large quantities of water for cooling and for waste storage ponds,¹⁶

11 Gualnam, C. (2008). 'Mining: Social and Environmental Influences. Website: [http://www.aippfoundation.org/R&ID/MiningSo&Env%20influences\(sum\).pdf](http://www.aippfoundation.org/R&ID/MiningSo&Env%20influences(sum).pdf).

12 Abdus-Saleque, Social and Environmental Impacts of Mining, Australian Lessons on Mitigation, Website. Available from <http://phulbariproject.wordpress.com,2008>.

13 <http://www.greenpeace.org/new-zealand/Global/new-zealand/report/2007/1/enviro-impacts-of-coal.pdf>, May 2005.

14 *Ibid.*

15 U.S. EPA, Study of hazardous air pollutant emissions from electric utility steam generating units – final report to Congress. February. 453/R-98-004a, 1998a.

16 Zero Hour, p.4; Yolandi Groenewald, Coal's hidden water cost to South Africa, Greenpeace June 2012, p. 7, available at <http://www.greenpeace.org/africa/Global/africa/publications/coal/CoalsHiddenWaterCost.pdf>

and the toxins produced by coal burning, such as mercury, nitrogen oxides and sulphur compounds, are dangerous when inhaled by people.¹⁷ The waste from coal burning power plants also has toxic effects.¹⁸

The three main forms of environmental destruction due to coal mining are land disturbance, habitat destruction and chemical impacts. Land disturbance occurs when the land above a hollowed out mine collapses, sometimes due to spontaneous combustion of coal underground. Habitat destruction occurs when coal mining makes the surrounding area unsuitable to host plant and animal life, and chemical impacts include dust, noxious fumes and gases, and acid mine drainage. In addition to these impacts is the noise pollution and ground vibration due to blasting, which may also destroy infrastructure.¹⁹

The method of mining also influences the environmental impact. While underground mining may lead to land subsidence, open cast mining results in massive mine dumps of unwanted material, often mixed with waste coal which may spontaneously burn, producing smoke and poisonous sulphur oxides, which further contribute to acid rain. Open cast mines create huge pits, which may be filled by rainwater, and either provide recreational facilities, or become breeding grounds for mosquitoes and water-borne diseases.²⁰ Coal mining also produces large amounts of methane, whose greenhouse effect is 21 times more powerful than carbon dioxide.²¹

The key difficulty in the relationship between mining and environmental regulation comes from the interaction of the stages of mining and environmental controls.²² At the exploration stage, when it's uncertain whether mining will even occur, a company will not want to devote the time and resources needed to meet all the environmental requirements for a mining operation. Further, an industry will not want exploration rights which do not guarantee mining rights when a deposit is found,²³ but a government will not want to grant mineral rights over an area without assurance that any activity under

17 *Ibid.*

18 *Ibid.*

19 Richards, Sustainable Development and the Mineral Industry 2002.

20 Philip J Lloyd, Coal Mining and The Environment, Energy Research Institute, University of Cape Town, 2016.

21 *Ibid.*

22 John Southalan, Mining Law and Policy, International Perspectives, the Federation Press, 2012, p.109.

23 *Ibid.*

these rights will meet minimum environmental standards.²⁴

The traditional ‘command and control’ form of regulation, where requirements had to be met up front, presented problems for environment-mining interaction. Early responses to the mining-environmental law relationship were simply to exempt extractive industries from new environmental laws which otherwise operated throughout the jurisdiction.²⁵

Despite the development of technology to minimize the impact of mining, it obviously cannot resolve all conflicts.²⁶ Various world heritage sites have been impacted by mining, even though environmental controls have reduced the potential of mining.²⁷ Mining-environment interaction within a state is usually regulated by both mining and environmental laws. Some jurisdictions have ‘sectoral’ environment regulation with laws and agencies dealing specifically with mining’s environmental issues while other countries have general environmental regulatory systems that are enforced on mining as well as other activities.²⁸ The resourcing/implementation of regulations to protect the environment is important from a mining perspective. That various laws limiting the environmental impact of mines are not implemented draws attention to the need to address how environmental controls can operate.²⁹

One method used in various jurisdictions is for mines to provide performance bonds or bank guarantees to ensure the authorities have the necessary funds for rehabilitation work if the miner does not complete these.³⁰ Another approach is earmarking, for mine rehabilitation work, specific funds from government revenues from the project.³¹

A recent development, which may occur more frequently in the future is the question of a miner’s responsibility for the end use of the product mined.³² Several court cases have considered whether the greenhouse gas emissions of coal’s end-use should be considered

24 *Ibid.*

25 *Ibid.*

26 Eggert ,Sustainable Development and the Mineral Industry, 2000.

27 *Ibid.*

28 *Supra* note 60.

29 Zheng et al, Fluorosis caused by indoor coal combustion in China: discovery and progress *Environ. Geochem. Health*, 29 , , 2007, p. 103. <http://dx.doi.org/10.1007/s10653-006-9073-x>.

30 *Ibid.*

31 *Ibid.*

32 Acclimitise ,Climate Change and Mining, 2010

in determining the environmental impact of a proposed mine.³³ There is not yet a clear position, with some cases indicating that the coal's eventual emissions must be addressed as part of the environmental regulation and assessment of the mine.³⁴ The US courts have recently indicated that emission of greenhouse gases can constitute a 'nuisance' against which other parties may bring private law suits.³⁵

In addition to general regulation, mining agreements also address emissions/waste issues through regulatory-like controls and financial incentives e.g. tax incentives to encourage particular behaviour like expenditure on mine rehabilitation, government power to suspend operations considered environmentally damaging, specifying a certain percentage of total operation costs must be spent on environmental protection and management and having as a condition of the mining right ,that public, independent environmental monitoring and reporting must occur on an annual basis.³⁶

Many jurisdictions use Environmental Impact Assessments (EIA) to decide if a mining proposal can proceed and if so, with what controls.³⁷ The procedure for EIA varies but at it's most comprehensive will involve initial publication of the proposals, inviting public submissions, public hearings, publicizing the proposed regulatory controls to be used and issuing a public decision.³⁸ The degree to which these various stages must occur, and their comprehensiveness, usually depend on the expected impact of the project.³⁹

2.3 Sustainable Mineral Development

Although environmental laws can address mining, there is a need for a specific legal framework to deal with mining due to its immense effects on the environment, and due to its potential to generate broad benefits, which should be equitably shared among stakeholders. As minerals are not renewable resources, the benefits from mining in terms of generating employment and incomes should be weighed against the social and environmental costs of mining. Unfortunately, in many countries in Africa, such a cost-benefit analysis rarely takes place.⁴⁰

33 Malone, When Secret Settlements are Unethical, 2007, Available at <http://www.americanbar.org>

34 *Xstrata vs Cons Council* (2007) QLRT 33 (AUS).

35 *FoE vs OPIC* (2009) Case No.C02-4106 JSW (USA).

36 *Supra* note 60.

37 *Ibid.*

38 *Supra* note 60.

39 <http://pubs.iied.org/pdfs/9084IIED.pdf>.

40 D.K. Twerefou, Mineral Exploitation, Environmental Sustainability and Sustainable Development in

Locally, sustainable mineral development should be concerned with attaining long term economic, environmental and social goals that are defined at the local level, instead of being imposed on local people by the mining company. Therefore the relationship between the community and the mine should enhance the financial, human, information and physical resources of the community, instead of damaging them.⁴¹

The concept of sustainable mining has to consider environmental, economic and social factors, which all form a complicated network in which slight change in one factor may lead to drastic change in another.⁴² Therefore, legislation to govern sustainable mining should avoid the pitfalls of being simplistic or inept. For example, deregulation of industry (including mining) may lead to weaker enforcement, and thus greater pollution, with the irony that since the regulatory structure has already been weakened, its processes and decision making is slowed down, thus it is less able to respond to malpractices. In such a scenario, when a government tries to tighten its legislation, mining corporations pull out, reducing foreign direct investment (FDI) and leaving the host government in a quandary. However, mining can still be profitable even with strict environmental regulations as long as the regulations are stable, predictable and flexible, without compromising intergenerational equity.⁴³

Balancing the needs of mining corporations with those of the communities in which they do business presents unique practical, institutional and conceptual challenges to law and policy makers for the mining industry.⁴⁴

To a considerable extent, the concept of sustainability runs contrary to the way in which the mining industry operates, as it is accustomed to exploiting minerals without limitations, and without regard to the needs of local communities.⁴⁵ This is crucial in the context of developing nations, as they need the investment that mining brings, yet they are often unable to deal with the environmental consequences, and they have few other

EAC, SADC and ECOWAS Regions, 2009.

41 <http://pubs.iied.org/pdfs/G00901.pdf>

42 Kai Kokko et al ,Sustainable mining, local communities and environmental regulation, Page 59, 2014.

43 *Ibid.*

44 Elizabeth Bastida, Integrating Sustainability into Legal Frameworks for Mining in Some Selected Latin American Countries, Mining, Minerals and Sustainable Development, No. 120, January 2002.

45 *Ibid.*

choices for development. Consequently many governments in developing nations are convinced that strict environmental regulations will scare investors away, and they lack the human resource and technology to exploit mineral resources on their own. Added to that is the need for jobs, earnings, economic growth and foreign exchange, thus there is no political will to enforce laws that will guarantee sustainable mining.⁴⁶

2.4 Environmental Rights

The connections between human and environmental rights are interdependent and multifaceted. Law and practice have shown that disregard for international and domestic human rights standards contribute to environmental harm by sidelining persons and communities who would otherwise be effective contributors to economic growth, as well as guardians of the environment, if they had the opportunity to participate in programs and decisions affecting them and their home areas.⁴⁷

Social, economic and environmental rights are inseparable. Social and economic rights include rights to housing, adequate food, potable water, healthcare, education, among others.⁴⁸ Article 21 (2) requires the State to use policy and legislation, among other means, including creating targets to progressively realize the economic and social rights listed in Article 43, to allow persons and groups to attain their full development potential by providing the conditions of life that they need.⁴⁹ Though human rights and environmental rights were considered separate fields until recently, there is an increasing level of interaction between the two, because the nature of the human environment directly impacts the ability to enjoy human rights.⁵⁰

The 3 “generations” of human rights are civil and political rights; social, economic and cultural rights; and collective or solidarity rights. Civil and political rights, which are the entitlement of every individual, include life, universal suffrage and free speech, contained in the ICCPR. They are and are protected by most domestic laws.⁵¹ The 2nd generation

46 *Ibid.*

47 <http://www.unep.org/>.

48 Kariuki Muigua & Kariuki Francis, ‘Safeguarding Environmental Rights in Kenya’, (Unpublished paper available at, <http://www.kmco.co.ke>).

49 Article 21 (2) of the Constitution of Kenya, 2010.

50 Nicolas de Sadeleer, Enforcing EUCHR Principles and Fundamental Rights in Environmental Cases, *Nordic Journal of International Law* 81 ,201239–74.

51 I.P. Alston, *Protecting Human Rights through Bills of Rights: Comparative Perspectives*. Oxford: Clarendon Press, 1999.

of rights is social, economic and cultural rights, including work and adequate healthcare. They are covered by the ICESCR. However, they less commonly enforced at domestic level as civil and political rights.⁵² Environmental rights fall under a proposed third category, known as collective or solidarity rights, which also include peace and development.⁵³

Scholars are divided on the issue of recognizing environmental rights. While some argue that existing human rights are sufficient to encompass environmental problems, and hence the acknowledgement of unique environment rights are not necessary, others argue that procedural rights are sufficient to encompass environmental rights.⁵⁴ Yet others contend that the existing framework is not sufficient due to the complexities of environmental issues and the inherent deficiencies of a human rights framework encompassing environmental problems, and that the entitlement to a nurturing environment is necessary.⁵⁵

The jurisprudential bases for environmental rights have been articulated as follows: first, they are embedded in legal systems through common law principles such as nuisance and are therefore part of contemporary international law; second, they are a logical outcome of other rights, including life and property; third, environmental rights are becoming part of customary international law, given that more than one hundred countries in the world have embodied them in their constitutions.⁵⁶

States have an obligation to protect citizens from environmentally caused infringement on human rights. This can be achieved by fulfilling procedural duties, substantive duties, and a duty to protect persons exceedingly at risk from environmental damage, such as marginalized minority groups.⁵⁷ The procedural duties are derived from human rights

52 International Covenant on Economic, Social, and Cultural Rights, 16 December 1966, 6 D.H.M. 360, adopted in 1966 and entered into force in 1976.

53 R.P. Nanda and G. Pring, *International Environmental Law for the 21st Century*. Ardsley, N.M.: Transnational Publishers, 2003, p. 455.

54 Sumudu Atapattu, *Human Rights Approaches to Climate Change: Challenges and Opportunities*, Routledge, 2016.

55 Shelton, D, *Human Rights, Environmental Rights and Right to Environment*, *Stanford Journal of International Law*, Vol 28, 1991, p.103.

56 Boyd, D, *The Environmental Rights Revolution: A Global Study of Constitutions, Human Rights and the Environment*, Vancouver: UBC Press, 2012.

57 John H. Knox, *Human Rights, Environmental Protection, and The Sustainable Development Goals*, 2015, Washington International Law Journal Association.

law, which requires that states should determine the impact that environmental issues may have on human rights and to disseminate facts, to encourage public engagement, and to provide channels for legal redress in the event of environmental damage to enjoying human rights.⁵⁸

States also have substantive legal obligations to safeguard human rights from environmental damage. The salient points of this obligation are: states are not required to outlaw all environmentally harmful activities; states should use their discretion to balance environmental protection and economic growth, provided the balance does not cause egregious human rights violations; and states also must protect human rights from environmental damage caused by private entities. Deciding whether such a balance is reasonable, human rights organizations consider if state activity conforms with international environmental and health regulations, if the activity applies progressively or not, and whether the balance is actually implemented.⁵⁹

States also owe duties to people who are at greater risk of environmental damage, such as marginalized minority groups. States should not discriminate in applying environmental law and policy to different groups, and in addition they should perform more duties with regard to indigenous populations, who have a close connection to the environment which means their rights are greatly affected by environmental damage.⁶⁰ In conclusion, it is well established in international human rights law that there are numerous recognized human rights that require a healthy environment as a prerequisite for their recognition.⁶¹

2.5 Environmental Rights In Kenya

2.5.1 The Substantive Environmental Rights

The entitlement to a pristine and nurturing environment is guaranteed in the Kenyan

⁵⁸ *Ibid.*

⁵⁹ John H. Knox, U.N. Independent Expert, Report of the Independent Expert on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, Mapping Report, U.N. Doc. ,Dec. 30, 2013.

⁶⁰ John H. Knox, Human Rights, Environmental Protection, and The Sustainable Development Goals, 2015, Washington International Law Journal Association.

⁶¹ Bridget Lewis, Environmental Rights Or A Right To The Environment? Exploring The Nexus Between Human Rights And Environmental Protection, *Mqjicel* 2012, Vol 8(1) .

Constitution, in Article 42, which extends the right to include present and future generations, and for the state to fulfil environmental duties under Article 69. In Article 69(1), the State's obligations in respect to the environment are outlined as well as the means the state shall use to conserve and protect the environment.⁶² In sub article (2), all citizens have the duty of cooperating with the State for conservation and protection of the environment.

The Constitution also provides for implicit environmental rights such as the right to life;⁶³ to best possible health, freedom from hunger and accessibility of potable water.⁶⁴

Additionally, entitlement to a pristine and nurturing environment is enshrined in the *Environment Management and Co-ordination Act*.⁶⁵ Section 3(1) of EMCA provides that all people in Kenya are entitled to a pristine and nurturing environment, and are obligated to safeguard and enhance. Significantly, unlike in the Constitution where the bulk of the duty to safeguard the environment is on the government, EMCA also imposes the duty of protecting the environment on individuals.

Constitutional provisions that protect the environment are difficult to enforce in the courts, due to ambiguity about the concept of the "environment" and how it can be included in constitutional jurisprudence.⁶⁶ In constitutional terms, entitlement to a pristine and nurturing environment affects enforcement of many other rights, as environmental rights do not fit easily into the three aforementioned "generations" of rights.⁶⁷ Therefore, they overlap all three categories, hence courts prefer to interpret each generation in such a way that they contribute to the aim of safeguarding the environment. For instance, entitlement to a pristine and nurturing environment includes eliminating pollution,⁶⁸ food and water security and protection from unhealthy elements,⁶⁹ access to

62 The obligations are, inter alia, the duty to ensure sustainable exploitation, utilization, conservation and equitable sharing of natural resources; encourage public participation; protect generic resources and biological diversity; establish systems of environmental impact assessment, environmental audit and monitoring of the environment; and eliminate activities that are likely to endanger the environment.

63 Article 26, the Constitution of Kenya, 2010, Government Printer, Nairobi.

64 *Ibid.*, Article 43.

65 Act No. 8 of 1999, Government Printer, Nairobi [herein referred to as EMCA].

66 Erin Daly, Constitutional Protection for Environmental Rights: The Benefits of Environmental Process, *International Journal of Peace Studies*, Volume 17, Number 2, Winter 2012.

67 Kariuki Muigua, Safeguarding Environmental Rights in Kenya,

68 Article 69 of the Constitution of Kenya, 2010.

69 *Ibid.*, Article 43.

justice,⁷⁰ public participation⁷¹ and access to information.⁷²

The Ugandan case of *Uganda Electricity Transmission Co. Ltd v. De Samaline Incorporation Ltd*⁷³ defined entitlement to a nurturing environment expansively. The court stated entitlement to a pristine and nurturing environment was not merely a medical matter, but that it should be considered a comprehensive, social and cultural concept, as it affected (and continues to affect) human mental and physical well-being. Therefore, a pristine and nurturing environment should be assessed both medically and ethically, as it consists of linkages in the well-being of people, including poverty, social injustice, low self-esteem and poor access to healthcare. Therefore a pristine and nurturing environment could not be limited to a clinical model.

Article 70 of the Constitution provides for enforcing environmental rights in court, in which any person alleging that the entitlement to a pristine environment has been violated, can apply for the infringement to be redressed and remedied. The Constitution gives courts wide discretion in environmental matters,⁷⁴ including orders to avoid or halt any action or oversight that would harm the environment; to force any public officer to act in order to cease any environmental damage; or to compensate any person harmed by infringement of entitlement to a pristine and nurturing environment.⁷⁵ Wide constitutional jurisdiction is granted to litigants seeking to enforce environmental rights, as litigants do not have to prove personal loss or injury to bring environmental claims.”⁷⁶

In addition, environmental rights are bolstered by the creation of a specialized environmental court. Article 162(2)(b) requires Parliament to set up courts of High Court status to judge environmental disputes and disputes on use, possession and ownership of land. The proposed courts are given such high status to prevent conflict with other constitutionally established bodies.⁷⁷ Consequently, Parliament established the Environment and Land Court which has both original and appellate jurisdiction to

70 *Ibid.*, Articles 48 and 159.

71 *Ibid.*, Article 69 (1) (d)

72 *Ibid.*, Article 35

73 Misc. Cause No. 181 of 2004

74 *Ibid* Article 70(2).

75 *Ibid.*

76 Article 70(3) of the Constitution of Kenya,2010.

77 Joel Kimutai Bosek,Implementing environmental rights in Kenya’s new constitutional order: Prospects and potential challenges,[2014] AHRLJ 25.

determine disputes and to review decisions of other tribunals, including to determine disputes regarding threats to or contraventions of rights and liberties connected to a pristine and nurturing environment .⁷⁸

In addition, rules for *locus standi* in the Environment and Land Court are less stringent than in other courts. Article 22(2) states that a party bringing an environmental action does not need to demonstrate they have suffered environmental harm. In addition, Article 70(3) provides that in enforcing environmental rights, there is no need for applicants to prove any loss or injury. These provisions give an opportunity to all citizens to challenge activities or decisions that may harm the environment.⁷⁹ Article 159(2)(d) of the Constitution further states that justice will be done substantively, and excessive concern for technical procedures will not be a factor. Previously, it was easy for environmental cases to be thrown out without consideration of their merits, as in *Wangari Maathai*,⁸⁰ where the court denied the plaintiff *locus standi*, and added “it is well established that only the Attorney-General (AG) can sue on behalf of the public.”

It is also worth noting that administrative action by administrative bodies like the Kenya Forestry Services (KFS), Kenya Wildlife Services (KWS), National Environment and Management Authority (NEMA), and other bodies responsible for administering specific aspects of environmental law can be used to enforce environmental rights.

Article 47 of the Constitution provides that all persons are entitled to fair, fast, efficient, reasonable and lawful administrative action, and that when the fundamental rights and freedoms of an individual have been or may probably be violated by administration, then the individual so affected is entitled to written reasons for the action.⁸¹ This was operationalized by the enactment of the Fair Administrative Actions Act, 2015.

2.5.2 The Procedural Rights

Procedural rights are integral in accessing environmental justice because they are the

⁷⁸ Sec 13(3) of the Environment and Land Court Act, No. 10 of 2011.

⁷⁹ *Supra* note 161.

⁸⁰ *Maathai v Kenya Times Media Trust Ltd* [1989] eKLR

⁸¹ Article 47 of the Constitution of Kenya, 2010.

means for enforcing substantive environmental rights. The entitlement to a pristine and nurturing environment is a mere substantive right which cannot be enforced without a robust framework of procedural law.⁸² Procedural rights enhance the entitlement to a pristine and nurturing environment because they allow individuals to take part in consultations and decision making that directly impact their daily lives. Moreover, informed citizens are better enabled to articulate and defend their entitlement to a pristine and nurturing environment.⁸³ The Rio Declaration on Environment and Development expresses the significance of procedural rights.

The Declaration states that environmental matters are best addressed with participation of all relevant parties, including the public. Nationally, everyone should be able to access relevant environmental information possessed by public authorities, including information on dangerous materials, and the citizenry should be enabled to take part in all stages of decision making. States should enhance public participation by disseminating information widely. They should also provide procedures for legal and administrative redress and remedies.⁸⁴

The *Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters*, (Aarhus Convention), which applies in Europe, is the most detailed convention on procedural environmental rights. It spells out access to three sets of procedural rights i.e. to information, to justice, and to public participation in decision making. The convention proceeds further than most other international environmental instruments in requiring that states should not limit themselves to merely avoiding transboundary environmental harm; they should also avoid mineral exploitation in areas set aside for conservation, even within their national boundaries. Therefore sovereign rights of mineral exploitation are no longer supreme, as per the Aarhus convention.⁸⁵

In modern society, land and resource use, and the extent to which pollution can be

82 Kariuki Muigua & Kariuki Francis, 'Safeguarding Environmental Rights in Kenya', (Unpublished paper, available at <http://www.kmco.co.ke>).

83 Ben Kiromba Twinomugisha, 'Some Reflections on Judicial Protection of the Right to a Clean and Healthy Environment in Uganda', 3/3 Law, Environment and Development Journal (2007), p. 244.

84 Principle 10, Declaration of the UN Conference on the Environment and Development held at Rio de Janeiro from 3-14 June 1992 [herein referred to as the Rio Declaration], available at <http://www.unep.org/Documents>

85 Cecilia G. Dalupan, Mining And Sustainable Development: Insights From International Law*

tolerated or mitigated, is a fundamental human concern. As all people are vulnerable to environmental damage, all people should be included in decision making processes regarding the environment.⁸⁶ Conversely, refraining from economic activities that harm the environment (such as mining) may jeopardize the long term economic well-being of a community. Furthermore, deciding whether to go ahead with such activities is fraught with uncertainty, as the predicted ecological damage sometimes cannot be proven scientifically in advance. Eventually, deciding whether or not to mine, as against preserving forests or other environmental resources, requires stakeholders to judge between rival economic, political, environmental and social interests, in situations of insufficient knowledge.⁸⁷ As the public directly suffer from environmental harm, the public should be able to make informed decisions about any activity that threatens such damage.⁸⁸

2.5.2.1 Access to Information

Public involvement in decision making and oversight of corporations and governments can only take place when the public have access to up-to-date and accurate environmental information, which can be used to plan for best practice in terms of techniques and technology.

The Constitution provides that citizens may access information possessed by the State or by any individual that is required to protect any fundamental freedom.⁸⁹ In addition, the Constitution provides that the State shall make public any information that affects the nation. Under section 123 of the EMCA all persons may access any records sent to the National Environment Management Authority,” NEMA. However, such access is at the discretion of NEMA and only available upon application. NEMA is within its right to insist on maintaining confidentiality and therefore restrict access to any document.⁹⁰ Moreover, EMCA provides that the Director General “should publish Environmental Impact Assessment study reports in the Kenya Gazette and a newspaper circulating in

86 Penelope Simons and Lynda Collins* Participatory Rights in the Ontario Mining Sector: an International Human Rights Perspective Simons, Collins Volume 6: Issue 2 179.

87 *Ibid.*

88 Rachel Carson, *Silent Spring*, 40th anniversary edition (New York: First Mariner Books, 2002) at 13.

89 Article 35 of the Constitution of Kenya.

90 See section 123 of EMCA.

the area concerned for two successive weeks.”⁹¹

To surmount obstacles in terms of information access, the mining corporation should engage in equal, mutual dialogue with the neighbouring community. Transparency is mandatory, from the beginning of the project till its end, as it is crucial for building and maintaining trust. The corporation should also be willing to respond to any and all concerns raised by the community, and it should promptly inform the community of any significant changes that take place in the mining activity. Communication needs to be “user-friendly;” the community should not be overwhelmed by technical jargon. The corporation should not insist on particularly formal means of communication (memos, press releases, etc) and should be willing to engage in face to face discussions. Matters such as travel to the venue, domestic arrangements and the time and venue of meetings should be carefully considered to allow as many members of the community as possible to take part.⁹²

The Benefit of applying access to information is that it fosters public approval and citizens’ buy-in for the contracts and concessions thus mitigating potential and actual conflicts in communities where resources are being extracted.⁹³

2.5.2.2 Public Participation

Kenya's mining industry has been boosted by identification of large mineral deposits including coal in Mui Basin, Kitui County.⁹⁴ Therefore, there is demand for increased public engagement by communities affected by mining, to resolve their issues with the benefits and impacts of mining.⁹⁵ Despite the possibility of mining contributing to transformational growth in the country, the mining industry is notorious for its complexity and lack of engagement with the public, thereby creating fertile ground for suspicion between communities, companies and the government.⁹⁶ This suspicion can be attributed to miscommunication and disinformation, either by government or companies, and high expectations among communities, which are compounded by lack of

91 Section 59, EMCA.

92 <http://pubs.iied.org/pdfs/G00901.pdf>.

93 Beverline Anyango Ongaro *et al*, Access to Information and it’s role in ensuring good governance in Kenya’s Extractives Industry,,Strathmore University Press,2018.

94 Melba .K. Wasunna *et al*, Listening Project: Mui Basin, Kitui County, 2017.

95 *Ibid*.

96 *Ibid*.

information on the characteristics of the mining industry.⁹⁷

As stated in the Rio Declaration, environmental matters are best addressed with participation of all relevant parties, including the public. Public participation gives the citizen stakeholders a chance to state their opinions on environmental issues that affect their day to day lives. If these views are taken into account in governmental decision making on environmental issues such as in making policies and laws, implementation of the decisions will be much easier. Moreover, it will help to enhance the integrity, efficiency and oversight of decision making by state bodies. Further, public participation can help in identifying and addressing environmental problems as an early stage thus save reaction time, energy and scarce financial resources.⁹⁸

The benefits of public participation, as demonstrated practically, include the growth and maintenance of genuine relationships between corporations and communities, in which the concerns and interests of both sides can lead to joint problem solving and mutual respect.⁹⁹ Thus decision-making cannot exclude the community, as any actions taken by the corporation will inevitably affect them, hence they should engage on the basis of the goals and values of the community.¹⁰⁰

Corporations thus need to approach public participation with sensitivity. There is often a large power imbalance between corporations and the communities in which they work, and thus there may be reluctance and fear among the community regarding public participation. Therefore the corporation needs to be transparent and accessible to the community throughout the lifetime of the project, and be willing to act on community concerns.¹⁰¹ The community should be frequently and regularly briefed on upcoming changes in mining activity that may affect them. Communication should not be intimidating, and should avoid the use of jargon.¹⁰²

97 *Ibid.*

98 Kariuki Muigua & Paul N. Musyimi, Enhancing Environmental Democracy in Kenya, (Unpublished paper available at, <http://www.kmco.co.ke>).

99 "Breaking New Ground: Mining Minerals and Sustainable Development - Report of the MMSD Project", International Institute for Environment and Development and World Business Council for Sustainable for Development, 2002.

100 *Ibid.*

101 *Ibid.*

102 *Ibid.*

Article 69 (1) (d) of the Constitution provides that the State shall facilitate public involvement to manage, protect and conserve the environment. Further, public participation of the people is among the constitutional national values and principles.¹⁰³

Under EMCA members of the public are given the opportunity to present comments in person or in writing about Environmental Impact Assessment (EIA) reports.¹⁰⁴ This means that public participation is only a requirement at the proposal stage of a project. EMCA has no provisions for public participation during formulation of public policies or guidelines that touch on the environment.

In this way, proponents of environmental justice state that community participation in decision making on matters of local environmental concern can result in more environmentally balanced and just outcomes, and which are more likely to respect and to uphold human rights.¹⁰⁵

2.5.2.3 Access to Justice

Mining, which has a large effect on the socio-economic and political life of the communities in which it occurs, is inevitably connected to claims for social justice.¹⁰⁶ This is mainly due to noise, air and water pollution, and pollution of the land from mining waste.¹⁰⁷

In defining Environmental Justice Policy, the Commonwealth of Massachusetts stated that everyone is entitled to protection from pollution, and to a pristine and nurturing environment. Environmental justice means the equal safeguarding and significant participation of all persons in matters concerning the formulation, enactment and implementation of environmental laws, policies and regulations, and the fair sharing of environmental goods.¹⁰⁸

103 Article 10 (2) (a) of the Constitution.

104 Section 60 of EMCA.

105 *Supra* Note 93.

106 Tracy-Lynn Humby, *Environmental Justice and Human Rights on the Mining Wastelands of the Witwatersrand Gold Fields*, 2013.

107 *Ibid.*

108 Commonwealth of Massachusetts, 2002.

There are both procedural and substantive aspects of within environmental justice.¹⁰⁹ Environmental Justice is the concept that brings together concern for human rights and preservation of nature.¹¹⁰ Environmental justice includes: freedom from ecological destruction, public policy based on broad based access to justice, non-discrimination, ethical and responsible land use, and self determination of all people.¹¹¹

The Environmental Justice Networking Forum (EJNF) defines environmental justice as social transformation aimed at fulfilling basic human needs and improving the quality of life, in terms of economic growth, healthcare, shelter, human rights protection, environmental safeguarding and democracy. By connecting social and environmental justice, the movement intends to confront power imbalances which lead to the poor suffering the consequences of environmental harm stemming from the greed of governments and the corporate sector. EJNF recognizes environmental harm is most keenly suffered by the poor, and therefore EJNF intends to protect the participatory rights of the most affected at all levels of environmental decision-making.¹¹²

In South Africa, in *Federation for Sustainable Environment v Minister of Water Affairs*, where a town's drinking water was polluted by acidic runoff from a mine, the affected community brought the case on the basis of the access to water under section 27(1)(b). The community won, both on the matter of urgency and on the need for the municipal authorities to provide regular feedback to the affected community.

In *Peter Makau Musyoka et al (suing on their own behalf on that of the community of Mui basin) vs the Ministry of Energy and the Attorney General*,¹¹³ the petitioners alleged breach or likely violation or infringement of the entitlement to a pristine and nurturing environment contrary to Articles 42 or 70 based on apprehension that the methods to be deployed in the coal mining would lead to environmental degradation. However, it was held that the fact that coal mining causes

109 Julian Agyeman and Bob Evans, *Just sustainability: the emerging discourse of environmental justice in Britain*, 2004.

110 Peter S. Wenz, *Environmental Justice*, 1988.

111 Julius Agyeman and Tom Evans, *towards past sustainability in urban communities: building equity rights with sustainable solutions*, 2003.

112 David A McDonald, *Environmental Justice in South Africa*, Athens, Ohio: Ohio University Press, 2002.

113 *Peter Makau Musyoka & 19 others (Suing on their own behalf and on behalf of the Mui Coal Basin Local Community) v Permanent Secretary Ministry of Energy & 14 others* [2014] eKLR

environmentally adverse effects is not a self-defining reason not to concession coal mining. That there is a need to balance, on the one hand, the need to utilize natural resources sustainably so that they spur economic development since, after all, environmental resources are the capital base of the economy. On the other hand, there is the need to control and manage the use of the environmental resources to avoid generating unsustainable levels of pollution or waste or unjustified adverse effects on the health of humans. Hence, it fell on the Petitioners to persuade the Court that this delicate balance has not been struck in the Coal Mining Project.

2.6 Gaps in Literature

The protection of the environmental rights of local communities from the mineral sector has raised concerns due to recent discoveries in Kenya. Previous studies related to mining sector do not specifically cover the protection of environmental rights of local communities in the sector. Some focus on the impact of mining on ecosystems and on the effectiveness of Environmental Impact Assessment undertaken in regards to different mining projects in Kenya. On the other hand, others focus on analyzing the current regulatory framework for the enforcement of environmental rights without a specific focus on mining. Little Kenyan literature gave an in-depth discussion on protection of environmental rights of local communities in the mining sector. This study aims at assessing the current benefit sharing mechanisms in mining sector in Kenya. It seeks to understand the current legal and policy gaps in protection of environmental rights of local communities in the coal mining sector, that will provide benefits by balancing the interests of the Government, investors and communities in conformity with the Constitution to avoid environmental degradation and any conflict over resources in Kenya. Further, the study voices community's concerns in regards to the protection of their environmental rights. It deeply analyses the current regulatory framework in the mining sector and seeks to understand whether they really address community's interests and concerns in regards to the protection of their environmental in the mining sector in Kenya.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

Chapter Three is a background of Mui Basin where the research was conducted and describes the research methods used to undertake the study.

3.2 Study Site

Kitui County in eastern Kenya is bounded by Embu, Meru, Machakos, Makueni, Taita Taveta, Tana River, and Tharaka counties. Its land area is 30,496.5 square kilometres. Kitui's population is 1,012,709 persons, and its population density is 33 people per square kilometre. Viable coal reserves were discovered in Kitui's Mui Basin in 2010, estimated at four hundred million tonnes.¹

3.3 Research Design

The study used quantitative and qualitative methodologies, with combined desk and field research. The field research was undertaken to meet the second and third research objectives of the study on collecting communities' knowledge, attitudes and perceptions regarding the opportunities and challenges from coal mining and whether the environmental rights of local communities have been protected from the coal mining project in Mui basin.

3.4 Target Population and Sampling Size

A population is a collection of persons, items or objects from which samples are taken for evaluation.² The research population is considered a critical part of any survey. A target population consists of all elements or units of analysis about whom survey information is collected. The study employed simple random sampling technique to

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<https://www.diakonia.se/globalassets/documents/diakonia/where-we-work/africa/kenya-2014-rapid-assesment-coal-mining-kitui.pdf>.

2 Tromp & Kombo, 2013.

select the respondents.

One hundred and fifty respondents were selected using simple random sampling from three villages; Mui, Mathuki and Ngugi with fifty respondents from each village. The sample size of 150 respondents was arrived at based on the population of each village which is approximately 2000 people. The respondents were clustered into the two (2) Mui Basin coal mining zones and simple random sampling applied. The mining zones include Block C (Mui and Ngungi area) and Block D (Mathuki). Three focus group discussions were held in Mui market with a group of seven women, seven men and seven youth respectively. The purpose of the focus group discussions was to collect in-depth information useful to analyze quantitative data. All respondents were above 18 years old and were selected randomly and interviewed on a first encounter basis.

3.5 Data Sources and Data Collection Instruments

The study relied on both primary and secondary sources of data. Secondary data was collected from relevant literature in libraries such as journals, annual reports, books, case records, workshop proceedings and periodicals. The primary data comprised of information collected from communities affected by the coal mining project in Mui Basin to answer the second objective of the study. Primary data was collected using the following methods; questionnaire surveys, key informant interview and focus group discussion.

(a) Questionnaire Administration

A structured questionnaire was used to collect data and views from respondents. Questionnaires were administered to one hundred and fifty respondents among a cross-section of women, men and youth balancing factors such as age, marital status, socio-economic status and level of education. The survey examined perceptions of the community on the issue of protection of environmental rights, the awareness of laws in regards to mining sector, opportunities and challenges and public participation.

(b) Key Informant Interview

The researcher also conducted a key informant interview with NEMA officials. The researcher used an interview guide to generate discussions with the officials from

NEMA. The aim of this interview was to get informants to freely offer their opinions, knowledge and experience. These interviews involved the researcher asking open-ended questions, and supplementing them with more specific questions to acquire data on the environmental implications of the coal mining project in Mui Basin.

(c) Focus Group Discussion (FGDs)

Focus Group Discussion which refers to a directed discussion between the researcher and a group of interest where the researcher uses a predetermined checklist of key topics to guide the discussion was also used in this study to get in-depth understanding of the attitudes, beliefs, behaviors, motivations and perceptions on the subject matter of this study through follow up questions and probing. The researcher conducted three FGDs in three villages i.e Mathuki, Ngugi and Mui Market with representation of men, women and youths. During the FGD sessions, data was captured by note.

3.6 Data Analysis

Data processing was undertaken before analysis. It included manual editing, coding, data entry, data cleaning and consistency checking. Qualitative data from focus group discussions and interviews were analyzed and used to complement discussion of quantitative data. Descriptive statistical tools such as percentages bar and pie were employed to present results.

3.7 Data Presentation

The findings were presented using tables and graphs for further analysis and to facilitate comparison of results. Explanation to the tables and figures was given in prose. This was used to create quantitative reports like tabulations, percentages, and measures of central tendency.

3.8 Ethical Issues

The research instrument was availed to the experts and peers, who reviewed its content and constructed validity to ensure that the items are adequately representative of the

subject area studied. The researcher assured the respondents confidentiality of the information given to make sure that the respondents are not reluctant to give the information as sought by the study. Further, the researcher informed the respondents that they could withdraw from the study at any time before completion of data collection. Also, the researcher assured the respondents that the study is for academic purposes only and that information collected will not be used in any other way whatsoever.

CHAPTER FOUR: RESULTS AND DISCUSSIONS

4.1 Introduction

Chapter Four contains the study findings of both secondary and primary data collected. The primary and secondary data collected outlines the main findings and implications of coal mining on the environmental rights of local communities in the Mui Basin, Kitui County of Kenya. The particular focus of the field study was in Ngungi area, Mui, and Mathuki areas of the Mui Basin.

4.2.1 Adequacy of Legal Framework in Mining Sector in Kenya

Although Kenya is considered to have considerable mineral reserves, currently extraction is below potential.¹ To redress this state of affairs, Kenya has witnessed considerable legal and policy reforms relevant to the extractive industry in the recent past. Key among these is the new Constitution in 2010 and passing of the Mining Act, 2016.

(i) The Constitution of Kenya, 2010.

The Constitution is the backbone upon which all laws and regulations are based. There are several legal reforms undertaken in Kenya to align to the spirit of the Constitution. The Constitution² requires Parliament to pass legislation that will implement the environmental laws in Chapter Five of the Constitution.

Article 10(2) of the Constitution enshrines the principles and values by which Kenya is governed, including good governance, transparency and accountability that public officers are bound by in performing their duties. They are considered pillars of an effective equitable benefit sharing and are preventive remedies to avoid resource curse in mining sector. They facilitate dialogue, help prevent commercial confidentiality and

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Kenyan Ministry of Environment website www.environment.go.ke/archives/1773

2 The Constitution of Kenya, Article 72.

make officers accountable to the public.³

Article 40(3) as well as Article 60 (1) (b) of the Constitution set out the principle of compensation for land access. According to Article 40, when the land rights of a person or a community are infringed because of mining, the mineral right holder must compensate the owner or lawful occupier for loss or damage, as long as the loss or damage is in the public interest, and it is done according to the Constitution or any legislation that requires full compensation to be paid promptly, and provided that the legislation provides access to justice for the holder of land rights.⁴ Article 60 of the Constitution goes further by stating that land shall be held, used and administered equitably, efficiently, productively and sustainably.⁵

Article 42⁶ of the Constitution of Kenya provides that all persons are entitled to a pristine and nurturing environment, including the right of environmental safeguards for the enhancement of present and future generations, through legislation and other measures.⁷

Indeed a majority of the respondents confirmed that they are aware of the right to a clean and healthy environment as guaranteed by the Constitution. (see figure 2). However, in as much as most of the respondents were aware of that right, they did not know what it entails and how the same could be enforced in case of breach. This goes a long way in showing that with the anticipated coal mining project, and the likely breach of the environmental rights of the local communities, the local community will have a big challenge in safeguarding their environmental rights. This is because it is well known that coal mining causes a number of environmental problems, and affects local biodiversity.⁸ Access to justice might be a challenge due to poverty and the high illiteracy levels.

3 Article 10 of the Constitution of Kenya, 2010.

4 Article 40(3)(b) of the Constitution of Kenya, 2010.

5 Article 60 of the Constitution of Kenya, 2010.

6 Article 42 of the Constitution of Kenya, 2010.

7 Article 69 of the Constitution of Kenya, 2010.

8 Climate Greenpeace briefing, The Environmental Impacts from Coal, New Zealand, January, 2005. 2
<http://www.worldcoal.org/coal-the-environment/>

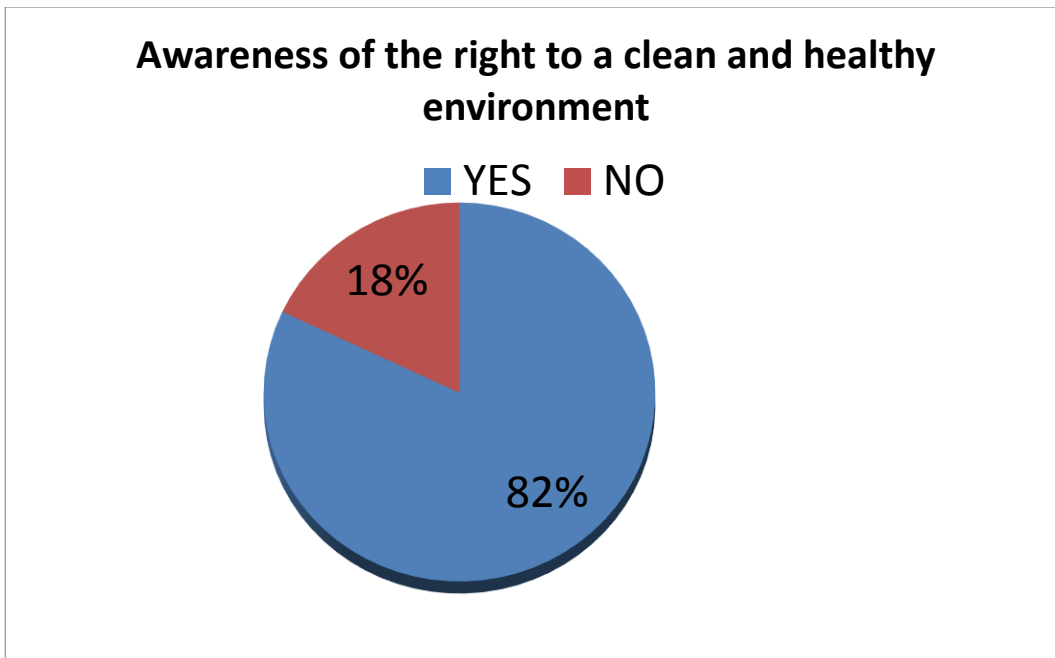


Figure 2: Knowledge on the right to a clean and healthy environment

Further, Article 69(1)(a) and (h) of the Constitution oblige the State to sustainably exploit, use, manage and conserve the environment and to equitably share its benefits for the Kenyan people.⁹ The Constitution further makes provision for access to information¹⁰ and public participation¹¹ under article 69(1) (d) which is important in environmental governance.

Article 159(2)(c) recognizes that alternative dispute resolution shall be enhanced, and shall not be used to infringe upon the Bill of Rights; shall not be abhorrent to morality or justice; and shall not contradict the Constitution or legislation.¹² If Kenya is to attract investors from a competitive global investment market, there should be the option of international arbitration, which is the established practice in global business for resolving disputes between the government and foreign corporations that hold mineral rights. This will enhance security of tenure.¹³

Article 174 of the Constitution outlines principles of devolution and promotes

⁹ Article 69(1)(a)(h) of the Constitution of Kenya, 2010.

¹⁰ Article 35 of the Constitution of Kenya, 2010.

¹¹ Article 69(1)(d) of the Constitution of Kenya, 2010.

¹² Article 159(3)(c) of the Constitution of Kenya.

¹³ Commission for the Implementation of the Constitution, comments on Mining Bill, 2012.

accountable and democratic use of power; promotes self-governance and public participation in the exercise of State power.¹⁴ Significantly, management of the mineral sector has not been devolved and it is mainly managed by the central government through the Cabinet Secretary in charge of mining.¹⁵

(ii) Mining and Mineral Policy, 2016¹⁶

The guiding principles of the Mining and Mineral Policy are among other things to ensure benefit sharing between generations and balanced use of minerals and incorporating watertight environmental safeguards, safety and health factors in mining investments, to guarantee just exploitation of minerals and distribution of benefits at the levels of communities, counties and the nation.¹⁷ A principal objective of the policy is to establish a system to harmonize legislation concerned with mining, health and occupational safety.¹⁸

The Policy appreciates that the environmental, health and safety standards which govern the conduct of economic activities in the country are available under various legal and regulatory regimes. In addition, the government ought to develop specific environmental, health and safety legislative and regulatory frameworks and standards for the mining sector that are aligned with international standards and best practices. The new mining legislation is envisaged to establish a clear legal framework, procedures and obligations pertaining to rehabilitation at mine closure by mineral right holders. Further, the legislation will require them to set aside an environmental deposit bond to meet rehabilitation and mine closure obligations.¹⁹

According to the survey, 93% of the residents of Mui Basin believe that their health would be adversely affected by the coal mining project. This is particularly because of the environmental effects of the project that would adversely affect the quality of water and air leading to diseases. One resident also indicated that the project would lead to the

14 Article 174 of the Constitution of Kenya, 2010.

15 Patricia I. Vasquez. Kenya At a Crossroads: Hopes and Fears concerning the Development of Oil and Gas Reserves. Graduate Institute Geneva. 2013.

16 Ministry of Mining Website.

17 Kenya Mining Policy, 2016.

18 *Ibid.*

19 *Ibid.*

production of acid rain. It is notable that this finding corroborates most authors who argue that environmental pollution by coal burning power plants is a significant source of pollution and environmental dangers.²⁰

From the survey carried out, 79% of the residents were of the view that mining would damage the environment to a great extent, 13% of the residents were of the view that the mining project would damage the environment to a medium extent while 8% of the residents were of the view that the mining project would harm the environment to a low extent. This expected extent of environmental damage is realistic as compared to the various coal mining projects in different countries²¹ and literature on the environmental impacts of coal mining.

To attain the objective of the Mining Policy, and to actualize returns from the mining industry, the Government is to implement an adequate system of institutions, by establishing numerous agencies and directorates.²² This was implemented with the enactment of the Mining Act, 2016.

(iii) Mining Act, 2016

Since independence, mining in Kenya has been governed by the Mining Act 1940 which was an adopted version of the Mining Ordinance of 1933.²³ However, the Mining Act, 1940 was repealed with the enactment of the new Mining Act, 2016.

During the survey, 24% of the respondents were aware of the passing of the Mining Act, 2016 (Figure 3). Some respondents were aware of the Mining Act because of various workshops and consultations on the coal mining project organized NEMA while some of them had heard about it from the local radio stations while a few from consultations on the coal mining project organized by NEMA. Assessing the awareness of laws related to mining sector is a key determinant to meet one of the objectives of this research on reviewing the legal framework governing mining in Kenya. It shows that there is a need

20 P. Asokan et al, Coal combustion residues—environmental implications and recycling potentials ,2004.

21 *Ibid.*

22 Mining and Minerals Policy | 2016 | The Popular Version.

23 Robert Kibugi. Mineral Resources and the Mining Industry in Kenya. In environmental governance in Kenya: implementing the framework law, p 35-372. East Africa Educational Publishers, 2008.

to increase awareness of laws governing the mining sector in Kenya, especially the communities. The awareness will empower communities to actively participate in any discussions on mining projects that affect them and ensure there is environmental justice and that their entitlement to a pristine and nurturing environment is protected through strict adherence and implementation of the Act. Upon breach of their environmental rights, the local community will be aware of the relevant state agencies that might help them like NEMA. Further, knowledge will enable them to enforce their rights in the Environment and Land Court.

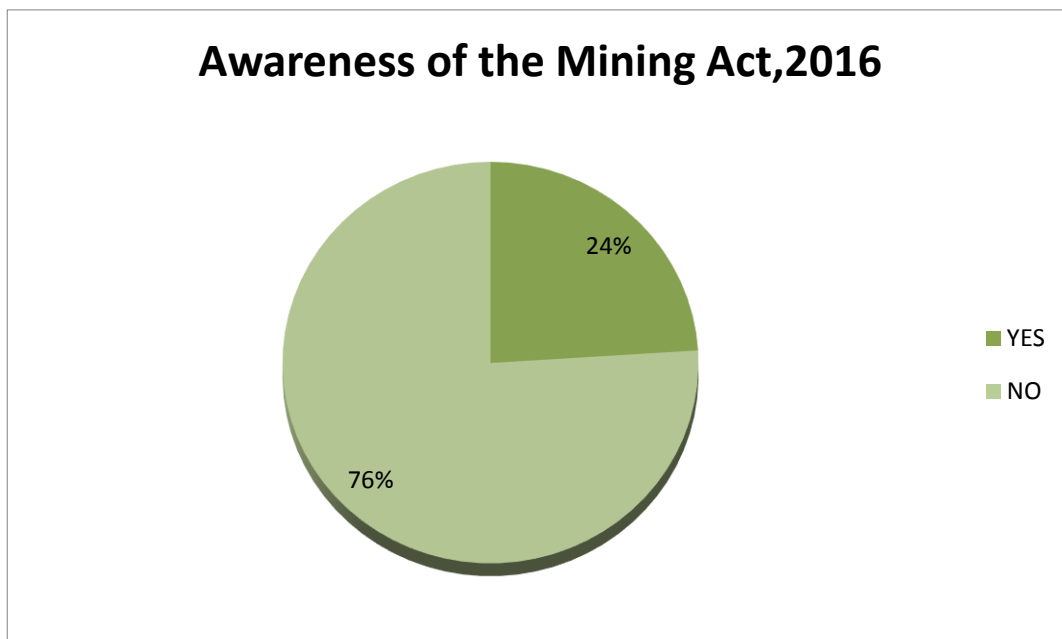


Figure 3: Awareness of the Mining Act, 2016

With regards to mineral rights on private land, s.37 of the Act provides that the reasonable, express consent of the private land owner is required before prospecting and mining rights are given under the Act, provided the consent is not withheld unreasonably.²⁴ Further, if the owner makes a legally binding agreement with the prospector or with the Government for prospecting or mining, or if the owner is adequately compensated, then consent will be deemed to be given.²⁵ When consent is given before any change in land ownership, consent shall be legally recognized as long as the prospecting and mining rights are valid.²⁶ This is to secure land rights of local communities.

²⁴ Section 37 of the Mining Act, 2016.

²⁵ *Ibid.*

²⁶ *Ibid.*

Further, with respect to community land, section 38 of the Act provides that mining and prospecting rights cannot be given over community land until the legal body responsible for community land or the National Land Commission gives consent.²⁷

Under section 140 of the Act, holders of mining permits shall mine under the directions of the Cabinet Secretary; they shall demarcate and maintain the mine as prescribed, they shall safeguard and regenerate the mining site and surroundings; and they shall present quarterly returns to the Cabinet Secretary on production and mine development.²⁸

Further, section 153 of the Act provides that the exercise of mineral rights infringes the owner's land rights, including use, property damage, changes in water table or water supply, harms agricultural or livestock production, or otherwise causes loss of owner's earnings, the owner may claim compensation from the mineral right holder according to the provisions of the Act.²⁹ This is pursuant to Article 40 of the Constitution. Further, a mineral right holder is required to deposit a bond, guaranteeing compensation with the relevant Ministry.

Section 176 of the Act provides that possession of mineral rights does not exempt a person from compliance with environmental laws. As a precursor to grant of a mining license, the seeker of a license must acquire an approved environmental impact assessment license, a social heritage assessment and an environmental management plan.³⁰ Section 177 of the Act further provides that the entitlements conferred under mineral rights do not preclude the Water Act, 2002 regarding use and extraction of water.

As regards to land use, section 179 of the Act provides that the holder of a mining license or permit shall use the land as directed by the license or permit, and shall restore abandoned mines and quarries. The holder shall also prevent the seepage of toxic waste and shall dispose of it in approved areas. Blasting and vibration shall be minimized according to the EMCA Act, and that after mining, the land shall be returned to its

27 Section 38 of the Mining Act, 2016.

28 Section 40 of the Mining Act, 2016.

29 Section 153 of the Mining Act, 2016.

30 Section 176 of the Mining Act, 2016.

previous state, as far as possible.³¹

With regards to site restoration and mine-closure plans, section 180 of the Act provides that minimizing damage to the site, and plans for rehabilitating and closing the mine should be approved as a prerequisite for the Cabinet Secretary to grant a mining, prospecting or retention license to an applicant. In addition, the Cabinet Secretary may impose regulations for rehabilitating and closing the mine.³²

With regards to environmental protection bonds, section 181 of the Act provides that applicants for mining, prospecting or retention licenses shall furnish an environmental protection bond to meet the cost of implementing the license holder's environmental and rehabilitation duties under the Act.³³ The cabinet Secretary shall determine the form and amount of the bond, based on the details of each project, and the requirements of the EMCA Act. The Cabinet Secretary shall release the bond in full after completion of all requisite environmental and rehabilitation obligations.³⁴

(iv) Environment Management Co-ordination Act, 1999

Environment Management Coordination Act provides for obligatory Environmental Impact Assessment before any specified project.³⁵ This EIA shall be submitted before commencement, and shall apply to projects that affect land use, including mining.³⁶ The Environmental Impact Assessment and Audit Regulations³⁷ set out what an EIA study should primarily address. They include an inquiry into the technology to be used and alternatives; the potential environmental impacts, including socio-cultural impacts; an environmental management plan to minimize impacts; as well as time frame, cost, and overall responsibility.³⁸ In mining sector, EIA license is a prerequisite to the granting of mining lease. In order to mine, the mining lease is required, preceded by a mine feasibility report, an EIA study, and a cadastral survey of the area applied for.³⁹

31 Section 179 of the Mining Act, 2016.

32 Section 180 of the Mining Act, 2016.

33 Section 181 of the Mining Act, 2016.

34 *Ibid.*

35 Section 58 of the EMCA Act, No.5 of 2015.

36 Second Schedule, Section 58, Act No. 5 of 2015, s. 80.

37 The Environmental Impact Assessment and Audit Regulations 2006, Regulations 18.

38 *Ibid.*

39 Section 176 of the Mining Act, 2016.

However, the focus has always been on the large scale miners to do everything possible to protect the environment. It creates the perception that small scale miners do not need to conduct an EIA.⁴⁰ Although the mining law in force at the moment does not refer to environmental management during the mining process, EIA regulations demand an EIA study that incorporates project details, impacts, mitigation techniques, a schedule, costs, responsibilities and commitments for minimization of impacts, including monitoring and environmental audits during starting and ending stages of a project.⁴¹

During the survey 87% of the residents were of the view that the coal mining project would not adhere to the air quality conditions as set out in the EMCA (Air Quality Regulations), 2014. 79% of the residents were of the view that that the quality of air would adversely be affected by the project. This is because of the emission of dust particles from the mining which would eventually adversely affect their health. This is important because it demonstrates the local community's perception as regards the project and particularly it's impact on the quality of air. Environmental Restoration Plans are also a requirement for mining, and they focus on what happens after the mining has been concluded, to prevent disused mines from being left as bare open pits, which pose environmental and public health hazards.⁴²

Almost all the members of the community have no idea where solid waste from the mining project will be deposited. During the survey, 96% of the residents had no idea how solid waste from the project would be deposited. This is important because the solid waste material deposit may adversely affect the quality of soil and consequently affect their health as a result of consumption of food grown in the area.

Section 108 of the EMCA compels issuing of environmental restoration orders on any person by NEMA or the courts.⁴³ Courts issue them after proceedings have been commenced by an aggrieved party. Environmental restoration orders, among other things, compel complete restoration of the environment to its prior state, and award of compensation to persons harmed. This is aimed at minimizing the non-rehabilitation of

40 *Supra* note 205.

41 *Ibid.*

42 *Ibid.*

43 Section 108 of the EMCA Act, No.5 of 2015.

disused mines.⁴⁴

There are two types of environmental audit under EMCA that includes the control auditing and the self auditing. Control audits are done by the Authority at its own instigation to check compliance or to verify self-auditing reports.⁴⁵ Self-auditing is done by the mining license holder to guarantee compliance with the Environmental Impact Assessment (EIA) report.⁴⁶

(v) County Governments Act 2012

Article 183 (1)(c) of the Constitution provides that County Executive Committees shall direct the functions and departments of County administrations.⁴⁷ Further, part 2, paragraph 3 of the Constitution's Fourth Schedule provides that the “control of air pollution, noise pollution and other public nuisances” is a function of the county governments.⁴⁸

Section 34 of the County Governments Act provides that County Executive Committees shall exercise authority as directed by the Constitution and relevant legislation, for the public benefit, and considering the goals and principles of devolution in Articles 174 and 175 of the Constitution, while promoting self-governance, minority rights, gender equity, social and economic development, and fair resource distribution. It therefore follows that indeed it's the role of the County governments to guarantee the environmental rights of the local communities during mining.

(vi) The Water Act, 2016

Section 63 of the Water Act universally guarantees clean, safe and adequate water and reasonable sanitation standards as per Article 43 of the Constitution. It also sets up the Water Services Regulatory Board (WASREB) to protect water consumers rights.⁴⁹ Its functions include determining national standards for water provision, asset development

44 Section 108 of the EMCA Act, No.5 of 2015.

45 Section 68(1) of the EMCA Act, No.5 of 2015.

46 Section 68(4) of the EMCA Act, No.5 of 2015.

47 Article 183 (1)(c) of the Constitution of Kenya, 2010.

48 Part 2, paragraph 3 of the Fourth Schedule to the Constitution of Kenya, 2010.

49 Section 70 of the Water Act, 2016.

for water service providers, licensing conditions for water service providers, and to monitor construction, design, maintenance and operation standards for water provision.⁵⁰ Further, water service bodies have the duty to receive and handle effluent without polluting the environment, harming human health, damaging sewage systems or breaking relevant laws.⁵¹

Communities living in Mui Basin do not have tap water but get it from boreholes and shallow wells. From the survey, 30% of the respondents get water from boreholes, 45% from shallow wells, 25% from streams.

With the anticipated coal mining project 95% of the residents believe that the project will be detrimental to the quality of water hence their health while 5% of the residents believe that it will not adversely affect the water quality. This might lead to a breach of their right to potable water as enshrined in the Constitution. This is due to the methods that will be deployed during the coal mining process i.e. open pit or underground mining which will definitely adversely affect the water quality.

4.2.2 Environmental Rights

(i) Right to clean and safe water in adequate quantities

Article 43(1)(d) of the Constitution provides that “every person has a right to clean and safe water in adequate quantities.” Section 63 of the Water Act further provides that everyone should have clean, safe and adequate water and reasonable sanitation standards as per Article 43 of the Constitution. The Water Act further establishes the Water Services Regulatory Board whose principal object is to protect water consumers rights.⁵² It’s functions include to determine national standards for water provision, asset development for water service providers, licensing conditions for water service providers, and to monitor construction, design, maintenance and operation standards for water provision.⁵³ Further, water service bodies have the duty to receive and handle effluent without polluting the environment, harming human health, damaging sewage

⁵⁰ Section 72 of the Water Act, 2016.

⁵¹ Section 108 of the Water Act, 2016.

⁵² Section 70 of the Water Act,2016.

⁵³ Section 72 of the Water Act,2016.

systems or breaking relevant laws.⁵⁴

Communities living in Mui Basin do not have access to tap water but draw water from boreholes and shallow wells. From the survey, 30% of the respondents get water from boreholes, 45% from shallow wells, and 25% from streams. (See Figure 4).

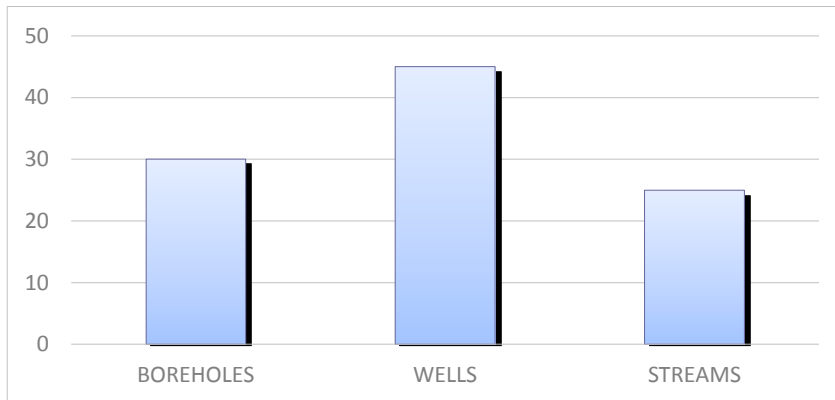


Figure 4: Source of Water

With the anticipated coal mining project 95% of the residents believe that the project will adversely affect the quality of water hence their health while 5% of the residents believe that it will not adversely affect the water quality. (see figure 5). This might lead to a breach of their right to potable water as enshrined in the Constitution. This is due to the methods that will be deployed during the coal mining process i.e. open pit or underground mining which will definitely adversely affect the water quality.

⁵⁴ Section 108 of the Water Act, 2016.

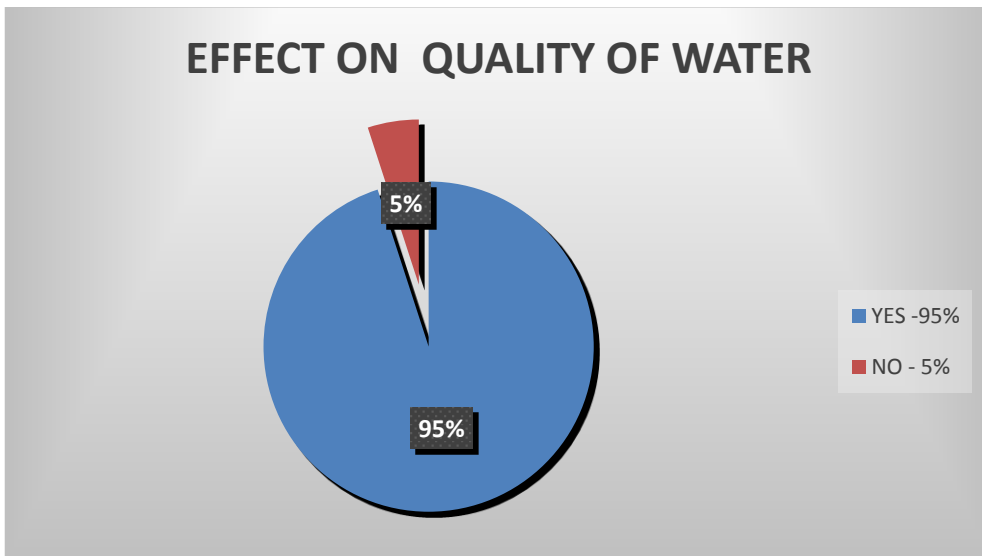


Figure 5: Perception on the effect of the mining project on the quality of water

(ii) Right to life and the highest attainable standards of health.

Article 26(1) and 43(1)(a) of the Constitution provides everyone the right to life and to the best possible level of health. The human right to potable water and sanitation is developed from the right to adequate living standards and interconnected with the right to the best possible level of health and human dignity.⁵⁵

According to the survey, 93% of the residents of Mui Basin believe that their health would be adversely affected by the coal mining project. This is particularly because of the environmental effects of the project that would adversely affect the quality of water and air leading to diseases (See Figure 6). One resident also indicated that the project would lead to the production of acid rain. It is notable that this finding corroborates most authors who argue that environmental damage from coal burning power plants around the world is reported to be a major cause of pollution which affects the characteristics and appearance of the environment, such as by interfering with land use, and the quality of air and water.⁵⁶

⁵⁵ Human Rights and the Environment Rio+20: Joint Report OHCHR and UNEP,2012.

⁵⁶ P. Asokan *et al*, Coal combustion residues—environmental implications and recycling potentials ,2004.

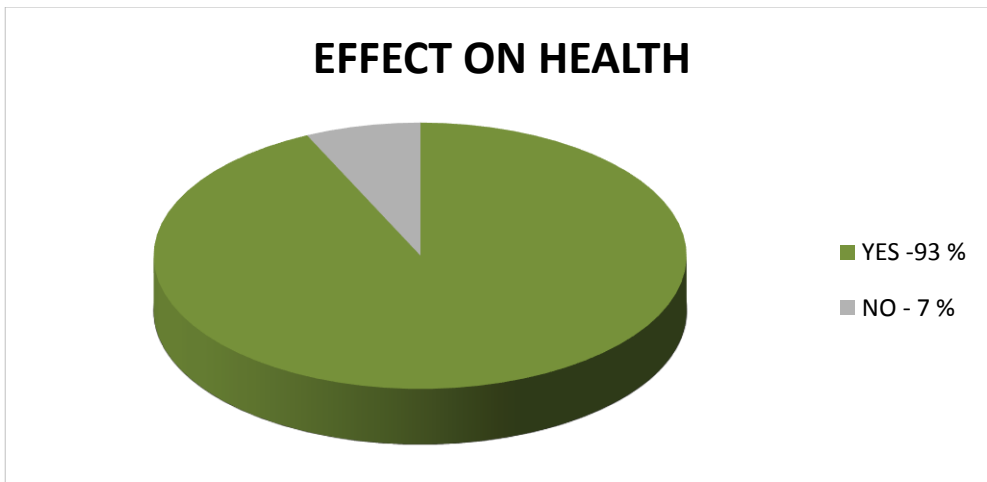


Figure 6: Perception on effect of the mining project on health

From the survey carried out, 79% of the residents were of the view that the mining project would damage the environment to a great extent, 13% of the residents were of the view that the mining project would damage the environment to a medium extent while 8% of the residents were of the view that the mining project would damage the environment to a low extent (See Figure 7). This expected extent of environmental damage is realistic as compared to the various coal mining projects in different countries ⁵⁷and literature on the environmental impacts of coal mining.

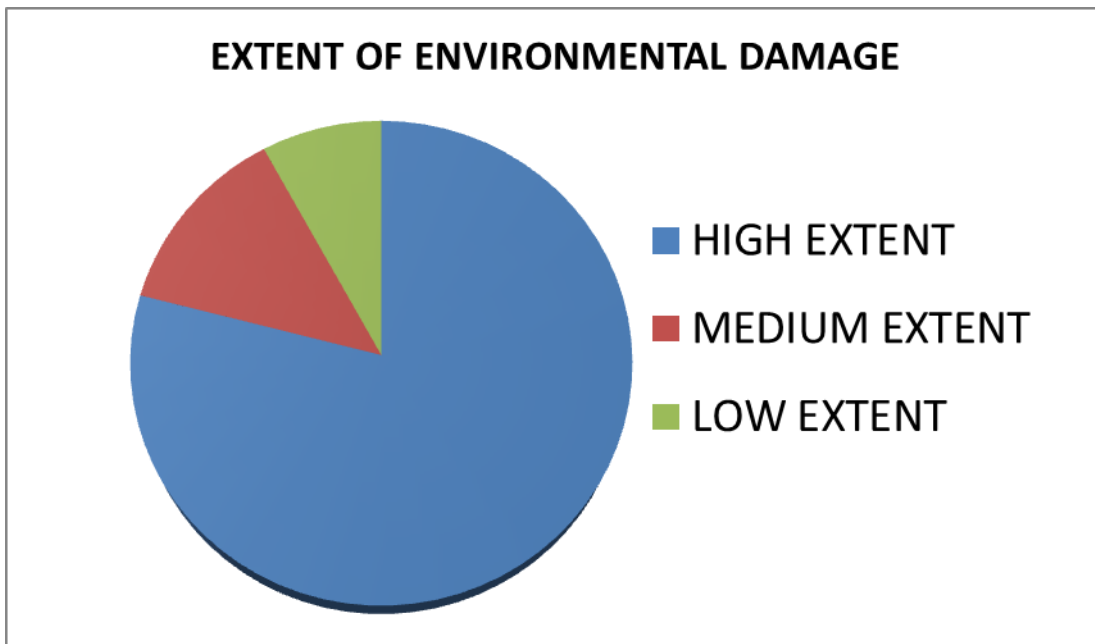


Figure 7: Perception on the extent of environmental damage

During the survey 87% of the residents were of the view that the coal mining project would not adhere to the air quality conditions as set out in the EMCA (Air Quality Regulations), 2014 (See Figure 8). 79% of the residents were of the view that that the quality of air would adversely be affected by the project (See Figure 9). This is because of the emission of dust particles from the mining which would eventually adversely affect their health. This is important because it demonstrates the local community’s perception as regards the project and particularly it’s impact on the quality of air.

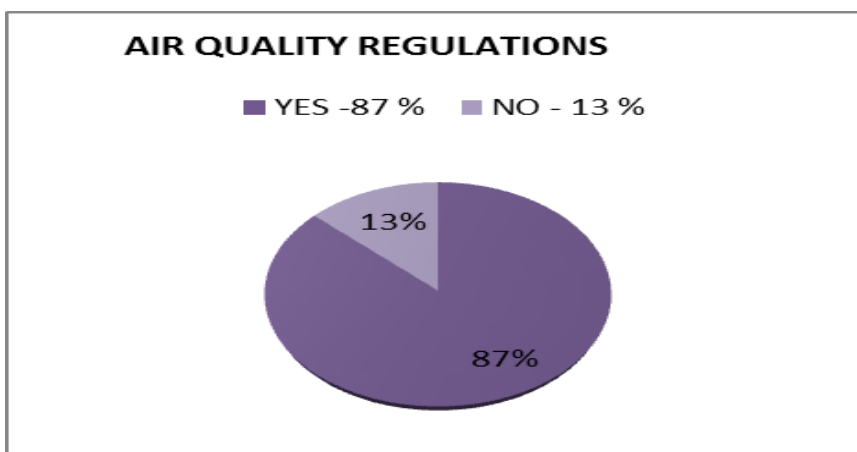


Figure 8 : Perception on adherence to air quality regulations

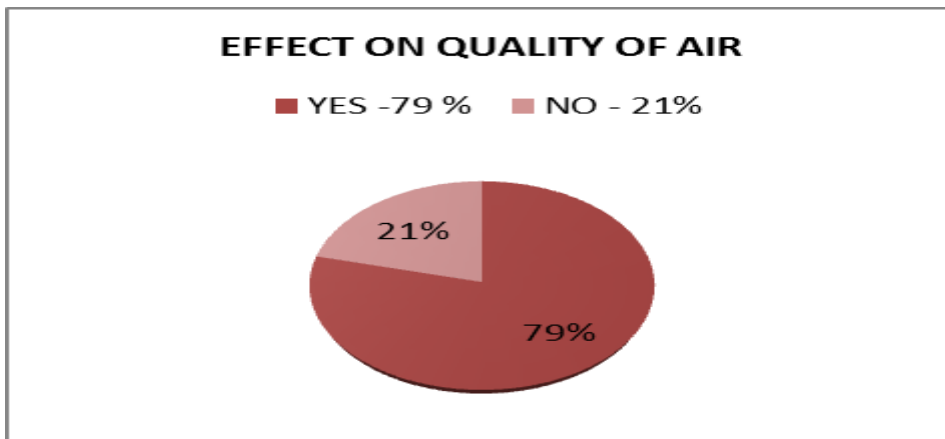


Figure 9: Perception on the effect of the mining project on air quality

Almost all the members of the community have no idea where solid waste from the mining project will be deposited. During the survey, 96% of the residents had no idea how solid waste from the project would be deposited (See Figure 10). This is important because the solid waste material deposit may adversely affect the quality of soil and consequently affect their health as a result of consumption of food grown in the area.

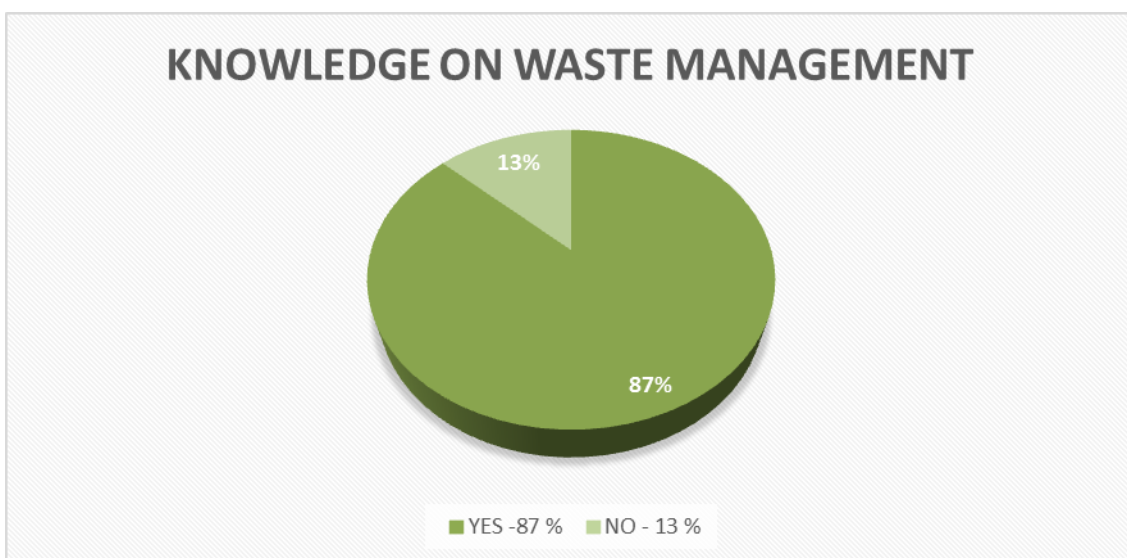


Figure 10: Knowledge on solid waste disposal

4.2.3 Public Participation

Article 69 (1) (d) of the Constitution mandates the State to promote public involvement in managing, protecting and conserving the environment. Further, public engagement is among the Constitutional national values and principles.⁵⁸ Under the EMCA Act, members of the public are given an opportunity to present written or oral opinions on Environmental Impact Assessment reports.⁵⁹

According to the survey, 78% of the respondents had not been involved or participated in any meeting regarding the coal mining project (Figure 11). Some of the respondents were of the view that they needed not to participate since there is a Mui Basin Liaison Committee which represents their interests on the issue. Others were of the view that they ought to have been consulted since the project would affect them directly. As to the barriers to effective community participation in the discussions on the project, 69% of the respondents were of the view that it was because of lack of knowledge and ignorance of the law, 15% of the respondents were of the view that it was because of the refusal by stakeholders to engage high costs and time factor in consulting the local community, while 16% of the respondents were of the view that it was because of the absence of trust between the stakeholders and the community (Figure 12). Assessing the level of community participation is critical because it's a constitutional requirement under Article 69 (1) (d) of the Constitution, which provides that the State will promote public engagement to manage, protect and conserve the environment. Further, public participation of the people is among the Constitutional national values and principles. Public participation is important since it can help in identifying and addressing environmental concerns in their initial phase and thus save reaction time, effort and sparse financial resources and foster genuine participatory relationships with the local community.

⁵⁸ Article 10 (2) (a) of the Constitution

⁵⁹ Section 60 of EMCA.

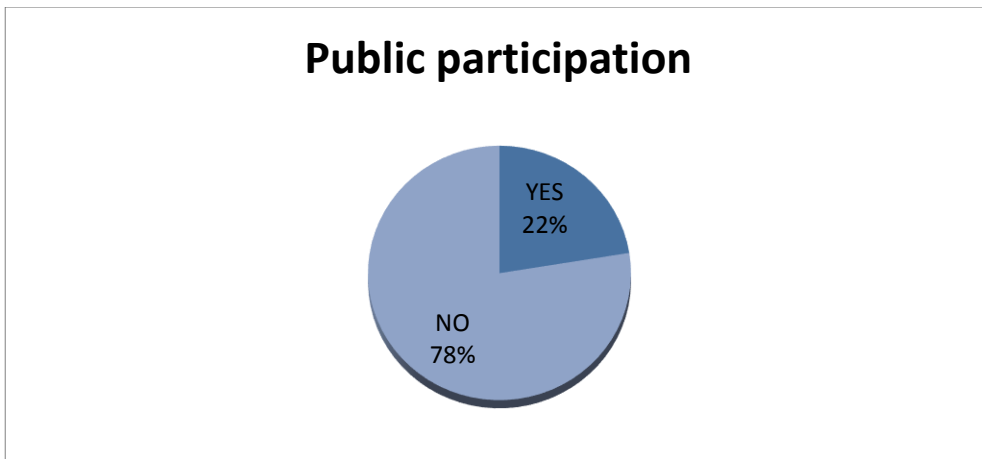


Figure 11: Household level of participation in the mining project

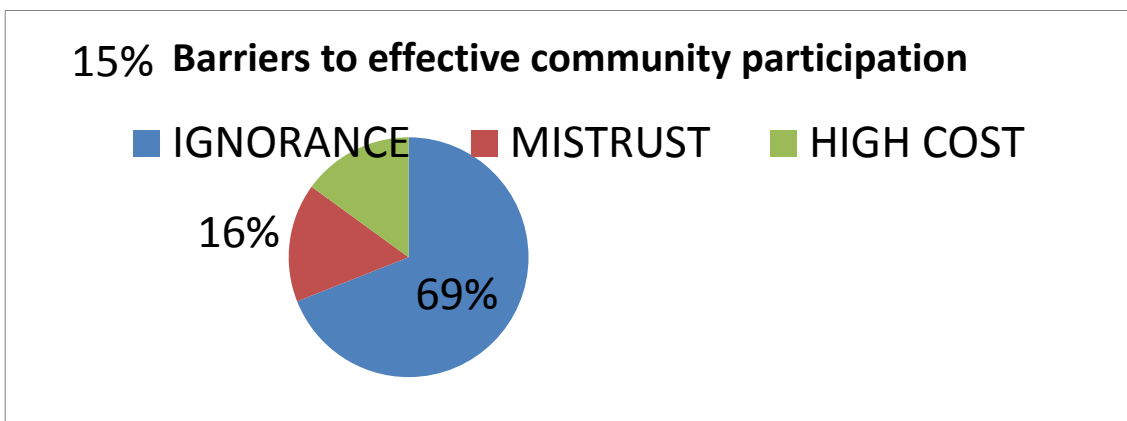


Figure 12: Barriers to effective community participation

4.2.4 Data Collected from Participatory Appraisal Methods

Key informant interviews and focus group discussions were conducted to meet the second and third objectives. Thirty residents participated in the focus group discussions with women, youth and men. The focus group discussions focused on three themes including the issue of the legal framework in the mining sector, anticipated environmental challenges and community involvement.

4.2.5 Legal Framework

Youth:

Most of them were not aware of the entitlement to a pristine and nurturing environment

provided for in Article 42 of the Constitution. They affirmed the lack of awareness of laws in the area. Some agreed that they had failed to read the Constitution because it is in English and even suggested having a Swahili version of the Constitution so that they can be aware of their environmental rights. As regarding knowledge on the enforceability of the Mining Act, 2016, most of the young people were not aware. They were of the view that there ought to be public awareness on the contents of the Constitution and the Mining Act.

Men:

Most are aware of their Constitutional entitlement to a pristine and nurturing environment , the right to life and right to property. They confirmed that they had heard about the new Mining Act but the contents are completely unknown to them. One out of the group, who was a village administrator, confirmed that he was aware of the Mining Act 2016 since he took part in some discussions on the project organized by NEMA.

Women:

Most of the women are were not aware of the entitlement to a pristine and nurturing environment enshrined in the Constitution nor the enactment of the Mining Act,2016. They believe that there is need to increase awareness of the laws in a language they could understand because, most of them could not understand English. Two women were aware of the entitlement to a pristine and nurturing environment provided for in the Constitution because they had attended a meeting on the mining project organized by NEMA.

One of the key informants, who works with the National Environmental Management Authority (NEMA) in a senior management position argued that the law had adequately provided for the protection of the environmental rights of local communities with the entitlement to a pristine and nurturing environment being anchored in the Constitution, EMCA Act and with the recent enactment of the Mining Act, 2016 into law. That there was need to increase awareness on the environmental rights of local communities by stakeholders including the national and county government and non-governmental organizations. He further indicated that the Environmental Impact Assessment (EIA) process had been conducted by NEMA as required by the EMCA Act at the initial stage of the project and it had been used as a factor in decision making and that it would direct

the decision as to whether the project should be carried out, terminated or changed before commencement. However, the EIA report could not be availed to the public.

4.2.6 Environmental Challenges

Youth

That they had heard that the mining project would adversely affect their health due to water pollution and dust particles from the mining process.

Women

Most of them were of the view that mitigation measures ought to be put in place to deal with all environmental challenges in case they occur. Most of them expressed concern about the adverse environmental impacts on the project especially with respect to water contamination and air pollution which could lead to diseases.

Men

Some confirmed that they attended meetings concerning the coal mining project. That they were told that the mining project would not have any adverse environmental impacts on the community and the environment but could not believe since they were just being told the positive aspects of the project and not the negative ones. That as residents of the area, they would suffer from air and water pollution which would eventually affect their health. Some were of the view that the coal mining project should not even be proceeded with.

One of the key informants, who works with the National Environmental Management Authority (NEMA) in a senior management position concurred with the respondents and admitted that it is well known that the coal mining project would have adverse environmental effects on the local communities like water pollution, air pollution, noise pollution and hazardous disposal of solid waste hence the need for relocation. He added that the process had stalled due to lack of land titles for most of the community members making it impossible for compensation to be done. He noted that most of the local residents did not have land titles, as land registration had not been done in the area, and that very few holders of land in the County had title deeds. Further, that official land demarcation and registration had been particularly slow.

4.2.7. Public Participation

Youth

That they had never been consulted or participated in any meeting concerning the coal mining project. They attributed this to their age and ignorance of the issues.

Women

Most of them had never participated in any meeting relating to the coal mining project. This they attributed due to language barrier and ignorance. That would be happy if they were involved in the process since they would equally be affected by the project.

Men

Some confirmed that they attended meetings concerning the coal mining project. That however, most had never participated. They were of the view that they should be fully involved since they are the heads of families and would be directly affected by the project. Further, that in as much as there was a Liaison Committee of the Mui Basin, the committee had never consulted them and that they were only representing their selfish interests. Most of them were not in support of the project.

One of the key informants, who works in the compliance and enforcement department at the National Environmental Management Authority (NEMA) in a senior management position concurred with the respondents that public participation had been carried out in accordance to the law. That however, most of the residents could not participate due to ignorance and language barrier. He admitted that indeed there ought to be a clear framework for public participation. A significant proportion of respondents stated that insufficient for a for public engagement, and stakeholders deliberately withholding information on proposed coal mining in Mui Basin. He was concerned about the formation of the Liaison Committee. He was also concerned about the level of community representation, and whether the Liaison Committee had effectively implemented its mandate of public engagement in discussions on coal mining in the area.

4.2.8 Institutional Framework in Mining Sector in Kenya

(i) Ministry of Mining

The Ministry of Mining was founded by the government to look into commercial mineral extraction in the country. The Ministry's role includes its duty to develop legislation and policies for mining and to grow the industry by making Kenya a mineral and metals hub for eastern Africa.⁶⁰ Previously, mineral extraction in Kenya was administered by the Mines and Geology Department of the Ministry of Environment and Natural Resources.

(ii) Mining and Geological Department

The Mines and Geological Department was established to oversee prospecting activities, which also entailed supporting prospectors to join forces and form partners, syndicates and companies. Among the first mining activities was for gold in Western Kenya. In the current organization of Government, the department falls under the Ministry of Mining and has the mandate to conduct geological surveys and research, to administer legislation on mineral resource development, to develop mineral and mining policy, to advise Government on mineral policy, to supervise mine safety, and to secure commercial explosives.⁶¹

(iii) National Mining Corporation

The National Mining Corporation is created under Section 22 of the Mining Act, 2016 to invest on behalf of the National Government in the mineral extractive sector. The Corporation has perpetual succession, with a common seal, and it has the legal personality to file and answer lawsuits in its own interest, as well as acquiring, buying and selling property. It can also incur debt, with the approval of the National Treasury, make contracts, and do anything else to execute its functions under the Mining Act.⁶²

The National Mining Corporation shall prospect for minerals and mine them, it shall

⁶⁰ *Ibid.*

⁶¹ Kenyan Ministry of Mining website.

⁶² Section 22 of the Mining Act, 2016.

invest on the National Government's behalf, it may acquire or hold a stake in any mining undertaking related to exploring, prospecting and mining, refining, grading, cutting, processing, or trade in minerals, and may conduct its business as it sees fit either by itself or in connection with any other entity.⁶³

(iv) Mineral and Metal Commodity Exchange

The Act also established the Mineral and Metal Commodity Exchange in the Mining Act, 2016, “to facilitate efficiency and security in mineral trade transactions.” The commodity exchange will be a marketplace for minerals.⁶⁴

(v) Mineral Rights Board

The Mineral Rights Board was established by s.30 of the Mining Act, 2016. It is to advise and recommend, to the Cabinet Secretary, on the granting, denial, retaining, renewing, suspending, revoking, varying, assigning, trade, tender or transferring of Mineral Rights Agreements, identification of small-scale mining zones, areas for proscription of mining, declaring certain minerals as strategic, suspending or ceasing mining licenses, charging fees and royalties for minerals and mineral rights, and any relevant matters under the Mining Act.⁶⁵

(vi) Directorate of Mines and Directorate of Geological Survey

The Mining Act, 2016 also creates the Directorate of Mines to supervise and administer the mining sector and the Directorate of Geological Survey⁶⁶ to among other things establish and maintain the national geological database and to encourage participation in the mining sector.⁶⁷

63 Section 24 of the Mining Act, 2016.

64 Section 28 of the Mining Act, 2016.

65 Section 30 of the Mining Act, 2016.

66 Section 17 of the Mining Act, 2016.

67 Sections 20 and 21 of the Mining Act, 2016.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

This chapter includes the conclusion of the study, recommendations and suggestions for further research.

5.1 Conclusion

Drawing from the analysis of the current mining legal framework in Kenya and the research findings from the field as presented in Chapter Four, the overall conclusion that emerges from the study is that in as much as there is a regulatory framework in place that addresses the concept of the protection of environmental rights of local communities in Kenya, the environmental rights of local communities in Mui Basin are likely to be violated with the anticipated coal mining project. There ought to be put in an effective implementation of Police Power by National and County Government including the relevant state agencies. This will ensure that the coal mining project is conducted in conformity with the Constitution and the law thus safeguarding the environmental rights of the local community.

Further, the study calls for greater involvement of the local communities before the coal project begins. This is in compliance with the requirements of the Constitution as regards to public participation. They should be given a chance to express their opinions at the beginning of the project, namely during the generation of the Environmental Impact Assessment Report and the Social Impact Assessment Report of the coal mining project. From the survey, most of the community members were in the dark as to the actual status of the project. The local community should have adequate access to relevant information pertaining the mining project, pursuant to the Access to Information Act, 2016 so that they can adequately and effectively participate in the deliberations. Doing so will promote sustainable development in mining sector in Kenya in which economic, social and environmental considerations are balanced and simultaneously protect environmental rights of the local community.

Concerning environmental impacts of coal mining, from the analysis in the previous chapters, it is well known that coal is a dirty fuel which always has adverse environmental impacts on local communities including water contamination, air pollution, solid waste

disposal and noise pollution. As such, there is need to ensure that the anticipated coal mining project employs clean coal technologies in the mining process. This is in order to reduce or mitigate the adverse environmental implications on the local communities, thus protecting their environmental rights.

5.2 Recommendations

Drawing from the above conclusions, this study makes recommendations oriented towards effective monitoring by the national and county government including the relevant state agencies so as to ascertain mining is conducted in conformity with law, thus defending environmental rights of local communities and mitigating adverse environmental impacts of the project on the local communities. Further, constructive engagement of local communities is also necessary to promote sustainable development in the mining sector in Kenya.

5.2.3 Effective Engagements of Communities through Sustainable Public Participation

From the survey undertaken for the purpose of this study, there is no effective community participation in the mining sector. Public participation is not really effective in the natural resources management because it is used as a mere administrative tool rather than to promote sustainable development. It is time for the country to rethink the concept of public participation so to promote sustainable development in the mining sector which will ensure that mining companies benefit from the mining project and that equally, environmental rights of the local communities are protected. The participation should not be simply a formality but should be based on communities having some influence over decisions and action in the project so as to benefit both the project and the stakeholders of the project. As such, the local communities should have access all information as regards the mining project so as to effectively participate in any deliberations on the project in conformity with the Constitution of Kenya and the Access to Information Act. It is high time the national government comes up with a Public Participation Policy and enacts an Act of Parliament on the same so as to demystify what it entails and effectively operationalize the same as envisaged in the Constitution.

5.2.5 Effective implementation of the Provisions of the law by National and County Governments

This study emphasizes the enormous responsibility bestowed both on the National and the County governments including state agencies to ensure the entitlement to a pristine and nurturing environment of local communities is safeguarded as in Article 42 of the Constitution. The national government should ensure there is strict adherence to the Mining Policy while the county government should ensure that environmental impacts of the coal mining project i.e. air pollution, noise pollution and other public nuisances from the project are minimized. The coal mining is expected to have detrimental environmental effects on local communities. As such, there ought to be an effective monitoring mechanism in accordance with the EMCA and the Mining Act in order to ensure that the mining company complies with all of its promises and relevant environmental regulations and standards. This should be done by the relevant state agencies like NEMA in collaboration with the local communities so as to ensure there is compliance with the law at all the stages of mining. This will help in further protecting the environmental rights of local communities. This is in accordance with Article 69 of the Constitution which obliges the State to guarantee “sustainable exploitation, utilization, management and conservation of the environment and natural resources. Further, every person has a duty to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources.” The national and county government should also ensure that the mining companies use of clean coal technologies thus also mitigating the environmental impacts of coal mining on the local communities hence protecting their environmental rights.

5.2.6 Recommendations for further researches

The need to protect environmental rights of local communities in the mining sector is recognized across the world including Kenya. Therefore, further researches on the issue are recommended. The study focused on environmental rights of local communities in the mining sector under the Mining and the EMCA Act, with a focus on the anticipated coal mining project. However, there is need to expand the research on the same once the mining project begins. Due to limited funds and time, the study targeted affected communities in Ngungu area, Mui area and Mathuki area. It would have been better to target a larger sample from the Mui Basin.

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ANNEX: QUESTIONNAIRE AND MAP

ANNEX 1: QUESTIONNAIRE

1. HOUSEHOLD QUESTIONNAIRE

A. IDENTIFICATION

Name of Respondent	
Place	Mui Basin(Ngungiarea,Mui and, Mathuki area)
Time for start of Interview	
Finishing Time	
Telephone No.	

B. CONSENT FORM

I am Wanyonyi Mercy and the survey is undertaken in partial fulfillment of the requirements of the degree of Masters of Arts in Environmental Law at the University of Nairobi, Kenya. My Research topic focuses on *implications of coal mining on the environmental rights of local communities in the MuiBasin,Kitui County*. The study site is the coal rich Mui Basin.

Please note that your participation is voluntary and information collected will be kept confidential. It cannot be traced back to you and you will not be personally identified in any reports.

Signing this consent indicates that you understand what will be expected of you and are willing to participate in this survey.

Signature.....

Date:.....

C. BASIC HOUSEHOLD QUESTIONS

1. What is the respondents' gender? Male female
2. What is the number of family members for each of the respondent?
0-4 5-9 10-14 Above 15
3. What is the highest level of education received?
Primary Secondary Tertiary Institution

D. ENVIRONMENTAL CHALLENGES OF THE COAL MINING PROJECT IN MUI BASIN.

(i) For how long has your family lived in Mui Basin? (Year)

0 -10 11-20 21-30 Above 30

(ii) What is your source of water? Boreholes Well River Streams

(iii) How far do you have to travel to access water? (Km) 0-3 4-7 8-11
Above 12

(iv) Is the water you have clean? Yes No

(v) Do you know where water effluents from the mining project will be discharged?

Yes No

(vi) Do you know where solid waste from the mining project will be deposited?

Mining site

If other specify.....

(vii) Do you know how solid waste from the mining project will be stored? On the ground Underground

(viii) Do you think the mining project will adhere to the permissible air quality conditions? Yes No

Explain.....

(ix) Do you think the air quality condition might be adversely affected with the coal mining project? Yes No

Explain.....

(x) Do you think your health might be adversely affected as a result of the coal mining project? Yes No

Explain.....

E. LEGAL AND POLICY GAPS IN THE MINING SECTOR IN KENYA

1. Are you aware of the right to a clean and healthy environment embodied in the Constitution? Yes No

2. Where would you complain when the environment is either about to be damaged or has been damaged? Court Ministry of Environment National Environmental Management Authority (NEMA)

Others

Specify

3. Are you aware of the existence of Mining Act, 2016? Yes No

4. If yes, does the Mining Act, 2016 adequately protect the environmental rights of local communities? Yes No

5. Have you ever been involved or participated in any meeting with regards to the coal mining project? Yes No

6. If yes, which meetings did you participate in? Environmental Impact Assessment (EIA) Liason Committee of Mui Basin Kitui County Government

7. How many times did you attend the said meetings? Once(1) Twice(2)
 Thrice (3)
8. Do you think your comments on the coal mining project will be taken into consideration? Yes No.

F. COMMUNITY PERCEPTION TO ENVIRONMENTAL RIGHTS

1. At what stage of the EIA process were you called to make comment on the coal mining project?
2. At the initial stage the design stage the time of preparation of the EIA
3. Do you think comments made by communities have been addressed by NEMA?
 Yes No
4. What are the barriers to effective community participation?
5. Lack of knowledge and ignorance of the law Refusal by stakeholders to engage
 High costs and time factor Absence of trust between the stakeholders and the community
6. What are some of the anticipated negative environmental impacts of the mining project on the community?
7. Water Pollution Air Pollution Health issues Soil degradation
8. If others specify.....
9. To what extent could the environment be damaged? Low extent Medium extent
 High extent
10. What are your expectations with regards to the environment as the mining project will be undertaken?
11. Specify

 ...

12. Is there anything else you would like to add?

I wish to thank you most sincerely for your participation in this focus group. Your efforts are very much appreciated and will allow us to focus on critical issues that make it difficult for communities to benefit from the resources found within the local community.

ANNEX 2: MAP

13.

MUI BASIN COAL BLOCKS A, B, C & D

