HIPSIR Research Series 2017/12

KNOWLEDGE AND POLICY GAPS IN EXTRACTIVE INDUSTRIES IN KENYA

A Baseline Survey in Turkana, Kwale, Lamu, Migori, Kitui and Taita Taveta

Elias Opongo, SJ



HEKIMA INSTITUTE OF PEACE STUDIES AND INTERNATIONAL RELATIONS (HIPSIR)



HIPSIR Research Series 2017/12

Knowledge and Policy Gaps in Extractive Industries in Kenya

A BASELINE SURVEY IN TURKANA, KWALE, LAMU, MIGORI, KITUI AND TAITA TAVETA

Elias Opongo, SJ



HEKIMA INSTITUTE OF PEACE STUDIES AND INTERNATIONAL RELATIONS (HIPSIR)



December 2017

KNOWLEDGE AND POLICY GAPS IN EXTRACTIVE INDUSTRIES IN KENYA A Baseline Survey in Turkana, Kwale, Lamu, Migori, Kitui and Taita Taveta

Copyright © Hekima Institute of Peace Studies and International Relations

Year of publication 2017

Cover design & Layout by John Agutu Email: agutujo@yahoo.com

Printed by

CONTENTS

Acl	knowledgements	7
Exe	ecutive Summary	9
Int	roduction	11
Mi	ning Extractives Policy in Kenya	13
Na	tional laws and Policies on the Extractive Industry in Kenya	13
Th	e Constitution of Kenya	13
Th	e Mining Act 2016	13
Th	e Mining and Minerals Policy	15
Th	e Petroleum Bill	15
Me	thodology	16
Oh	viectives of the study	17
Sne	ecific Objectives	17
Co	ncentual framework	17
CO.		17
т	τισκανά σοιντν ράζει ίνε είσνεν ρερορτ ον	
1.	TURANA GOUNTI DASELINE SURVEI REFORT ON THE EVTDAOTRE INDUSTRY IN KENVA	10
	THE EXTRACTIVE INDUSTRY IN RENTA	19
	Introduction	19
	Contextual Analysis	19
	Socio-Political Situation	19
	Mineral Resource Distribution	21
	Emerging Issues of Concern	25
	Conflicts	25
	Conflict between the oil companies and the community	25
	Land related conflict	25
	Environmental Protection	26
	Insecurity	27
	Benefit Sharing	27
	Research findings	28
	Perceptions on existing policies	28
	Community participation in decision making	29
	Impact on the extractive industry	29
	Benefits to the community accruing from the extractive industry.	30
	Income	30
	Provision of health facilities	31
	Education	31
	Infrastructure development	31
	Overall Expectation on Corporate Social Responsibilities	31
	Impact on environment	32
	Impact on conflict	22
	Conflict intervention mechanism	24
	Assessment of Community Chaptered Mediaters	34 95
	Assessment of Community Unartered Mediators	35
	Areas of training to enhance community participation in the extractive industry	36
	rolley recommendations	30

1	vational government
(County government
(CSOs, NGOs, MNCs
A	Academic institutions
(Conclusion
]	TAITA TAVETA COUNTY BASELINE SURVEY REPORT
Ι	ntroduction
(Contextual analysis
S	ocio-Political Situation
Ν	Aineral resource Distribution
F	Research findings
F	Perceptions on existing extractive industry policy(ies)
(Community participation in decision making
Ι	mpact of extractive industry in Taita Taveta County
Ι	mpact of extractive industry on livelihoods
Ι	ncome
F	Provision of health facilities
F	Education
Ι	nfrastructure development
F	Provision of security
(Overall expectations on Corporate Social Responsibilities (CSR) in Taita Taveta County
Ι	mpact of extractive industry on environment
Ι	mpact of extractive industry on conflict
(Conflict intervention mechanism
A	Assessment for Community Chartered Mediators
A	Areas of training to enhance community participation in the extractive industry
l n	'olicy recommendations
ן ר	he national government should:
ן ר	ne county government snould:
	The extractive companies should:
	asOs, NGOs should:
ר ר	Academic institutions should:
(Conclusion
. ł	SITUI COUNTY BASELINE SURVEY REPORT
Ι	ntroduction
(Contextual analysis
S	Socio-Political Situation
N	Aineral Resource Distribution
ł	Research findings
ł	erception on existing extractive industry policy(ies)
(community participation in decision making
1	mpact of the extractive industry in Kitui County
1	ncome
t T	Impioyment
ł	ieaun services

	Overall expectations on Corporate Social Responsibilities (CSR) in Kitui County			
	Impact of the extractive industry on the environment			
	Impact of the extractive industry on conflicts			
	Conflict resolution mechanisms			
	Assessment for Community Chartered Mediators			
	Policy recommendations			
	The national government should:			
	The county governments need to:			
	The extractive companies need to:			
	CSOs and NGOs need to:			
	The local community needs to:			
	NEMA need to:			
	Conclusion			
V	KWALE COUNTY BASELINE SURVEY REPORT			
	Introduction			
	Contextual analysis			
	Socio-Political Situation			
	Mineral Resource Distribution			
	Research findings			
	Percentian on existing extractive industry policy (ies)			
	Community participation in decision making			
	Impact of the avtractive industry in Kwale County			
	Impact of the extractive industry on livelihoods			
	Inspace of the extractive industry on livelihoods			
	Description of health facilities			
	Frovision of nearth facilities			
	Education			
	Intrastructure development			
	Overall expectations on Corporate Social Responsibility (CSR) areas in Kwale County			
	Impact of extractive industry on environment.			
	Impact of extractive industry on conflict			
	Conflict intervention mechanism			
	Assessment for Community Chartered Mediators			
	Areas of training to enhance community participation in the extractive industry			
	Policy recommendations			
	The national government should:			
	The county government need to:			
	Extractive companies need to:			
	CSOs and NGOs need to:			
	Academic institutions need to:			
	The local community needs to:			
	Conclusion			
	LAMU COUNTY BASELINE SURVEY REPORT			
	Introduction			
	Contextual analysis			
	Socio-Political Situation			
	2Mineral Resource Distribution			
	Research findings			
	Perception on extractive industry policy(ies)			

Community participation in decision making	<u>.</u>
Impact of the extractive industry in Lamu C	ounty
Impact of extractive industry on livelihoods.	
Income	
Employment	
Health services	
Education	
Existing Corporate Social Responsibility (CS	SR) activities by extractive industries in Lamu County
Overall expectations on Corporate Social Re	esponsibilities (CSR) in Lamu County
Impact of extractive industry on environment	1t
Impact of extractive industry on conflicts	
Conflict resolution mechanisms	
Assessment for Community Chartered Medi	ators
Areas of training to enhance community par	rticipation in extractive industry
Policy recommendations.	· · F · · · · · · · · · · · · · · · · ·
The national government should:	
County government needs to	
Extractive companies needs to:	
CSOs and NGOs needs to:	
Lamu residents need to:	
Conclusion	
Conclusion	
MIGORI COUNTY BASELINE SURV	/EY REPORT
Introduction	
Contextual analysis	
Socio-Political Situation	
Mineral Resource Distribution	
Research findings	
Perception on existing extractive industry po	licy(ies)
Community participation in decision making	r >
Impact of the extractive industry in Migori G	County
Impact of the extractive industry on liveliho	ods
Income	
Employment	
Health services	
Education	
Agriculture	
Existing Corporate Social Responsibility (CS	SR) activities by extractive industries in Migori County
Overall expectation on Corporate Social Res	sponsibilities (CSR) in Migori County
Impact of extractive industry on environmen	nt
Impact of extractive industry on conflicts	
Conflict resolution mechanisms	
Assessment for Community Chartered Medi	ators
Areas of training to enhance community par	rticipation in extractive industry
Policy recommendations	
The national government should:	
County government should	
Eutropius componies parda to:	
Extractive companies needs to:	
USUs and FBUs needs to:	
Community needs to:	
Conclusion	

ACKNOWLEDGEMENT

This research was a collaboration of many people and it would not have been possible without support from the faculty at Hekima Institute of Peace Studies and International Relations (HIPSIR), research assistants and our ground contact persons at the six counties where we conducted the research. I am particularly grateful to Ford Foundation for funding this research and their continuous support to HIPSIR's work. I would like to thank Catherine Amenya, program officer for peacebuilding at HIPSIR, and Nelly Kibet, HIPSIR student, both of whom assisted with the administrative coordination of the research. I am also grateful to the county officials, NGOs, community based organizations and individual respondents at Migori, Turkana, Taita Taveta, Kitui, Lamu and Kwale counties for their cooperation.

I hope that this research will contribute to bridging gaps in knowledge and policy in extractive industries in Kenya and create avenues for future development. Thank you for being part of this future story.

Elias Opongo, SJ Lead Researcher

EXECUTIVE SUMMARY

The main objective of this study was to assess gaps in knowledge, particularly in relation to policy and advocacy strategies applied in addressing diverse issues in the management of extractive industries, while evaluating the role of the local populations, country and national government as well as civil society organizations. A baseline survey on the existing capacity in knowledge, policy and advocacy at six counties (namely: Turkana county, Taita Taveta county, Migori county, Kitui county, Kwale county, and Lamu county) was conducted between May and September 2017. The main research participants included community leaders, non-governmental organizations (NGOs), community based organizations (CBOs), county government officials and academic institutions.

The study used both qualitative and quantitative research methods. A literature review was done of documented studies and reports on the key issues of concern in extractive industries in respective counties. A total of 508 respondents were reached, out of the 616 copies of questionnaire that were distributed. The respondents were reached out in these numbers per county: Turkana 74;Taita Taveta 108; Migori 76 ; Lamu 81 ; Kwale 77 ; Kitui 92. There were also key informant interviews and focus group discussions that enriched the data: a total of 74 key informants interviews and 13 focus group discussions (FGDs) were conducted.

The research applied descriptive research design, but more specifically baseline survey, in order to highlight the key elements of knowledge and policy gaps in extractive industry. The findings show that the six counties are endowed with different types of minerals, oil and gas. The research identified the following knowledge and policy gaps: majority of the respondents did not know about county or government extractive industry policies, in terms of contents and the extent of their operationalization; ignorance by respondents on the corporate social responsibility (CSR) requirements on the multinational companies operating in the specific locations; ignorance amongst government officials in relation to how the extractive industry should be administered and strategies put in place to ensure the communities benefit from the industry.

INTRODUCTION

On April 2013 Kenya officially announced the discovery of oil discovery and other minerals propelling itself as a new entrant into the fast growing extractive industry in Africa. The oil and gas exploration are at advanced stages and early production of oil could begin in 2018. The revenues from the oil, gas and other valued minerals are expected to make significant contribution to the country's 2030 Vision. Besides oil, Kenya has significant deposits of "gas, rare earth metals, coal, iron ore, gold, limestone, gypsum, soda ash, gemstones, manganese ore, fluorspar, diatomite, titanium, zircon, chromite, niobium and silica sand." According to Cortec Mining Kenya Limited, Mrima Hills in Kwale County has largest rare-earth mineral deposits in the world which has a potential in-ground value of up to US\$62.4 billion (UNDP, 2014). Among the discovered minerals include titanium (rutile, ilmenite, zircon) at Nguluku and Shimba Hills; gemstones at Kuranze; rare earth elements (niobium, phosphates) at Mrima Hills and Samburu; silica sands at Waa, Tiwi, and Ramisi; zinc, lead and copper at Mkang'ombe, Mwache, Dumbule, and Dzitenge; baryte at Lunga-lunga; coal at MajiyaChumvi; sandstones at Mariakani; limestone at Shimoni and Waa; coral rocks at coastline; and a potential for offshore oil and gas (UNDP, 2014). Other minerals include: gold, osmium, palladium, silver, secondary aluminum, iron ore, lead, and steel among others. Kenya has 77 different minerals besides oil and gas.

Unfortunately the non-renewal resources above are mainly located in areas with high levels of poverty, perennial droughts, insecurity and protracted marginalization by the government. There is therefore high potential for conflicts between communities, multinational companies and government agencies. Institutions charged with managing extractive industries in Kenya include: Ministry of Environment, Water and Natural Resources which has the responsibility of developing policy and providing actionable measures to sustainable use of natural resources in order to safeguard the livelihoods of citizens; The National Environmental Management Agency (NEMA) ensures that all environmental management aspects such as environment impact assessment, monitoring of activities of extractive industries in relation to environment as far as exploration, extraction and exits are concerned; Ministry of Lands, Housing and Urban Development is responsible for the management land resource, the licensing process for all required certification before any exploitation of resources begin; The National Land Commission administers all land transactions in relation to exploitation of natural resources, approvals for consent for public land use as well as resolving any land disputes. The local county governments are charged with the administration of activities within their jurisdiction and they ought to be consulted before prospecting or mining activities begin.

The main objective of this study was to assess gaps in knowledge, particularly in relation to policy and advocacy strategies applied in addressing diverse issues in the management of extractive industries, while evaluating the role of the local populations, country and national government as well as civil society organizations. A baseline survey on the existing capacity in knowledge, policy and advocacy at six counties (namely: Turkana county, Taita Taveta county, Migori county, Kitui county, Kwale county, and Lamu county) was conducted between May and September 2017. The main research participants included community leaders, non-governmental organizations (NGOs), community based organizations (CBOs), county government officials and academic institutions.

The findings of the research show that the above six counties are endowed with different types of minerals, oil and gas. The research identified the following knowledge and policy gaps: majority of the respondents did not know about county or government extractive industry policies, in terms of contents, and whether these existed or not; ignorance by respondents on the corporate social responsibility (CSR) requirements on the multinational companies operating in the specific locations; inadequate knowledge amongst government officials in relations to how the extractive industry should be administered and strategies put in place to ensure the community benefits from the industry.

EXTRACTIVES POLICY IN KENYA

National laws and Policies on the Extractive Industry in Kenya

The Constitution of Kenya

Chapter five of the Constitution of Kenya, 2010 enshrines the principles of land ownership, distribution and environmental preservation. Article 60 sets out the principles of land policy outlining how land in Kenya should be held, used and managed in a manner that is in accordance with the principles of: equitable access to land, sound conservation and preservation of ecologically sensitive areas, and encouragement of community to settle land disputes through recognized local community initiatives consistent with the Constitution among others.¹ Article 62(1) (f) states that all minerals and mineral oil as defined by the law shall form part of public land and shall be held by the national government in trust for the people of Kenya and shall be administered on their behalf by the National Land commission.²

Article 66(2) gives the responsibility to parliament to enact legislations that would ensure investments in property benefit local communities and their economies.³ Article 69 sets out the obligations of the state with regard to environmental preservation, in particular, the use of environmental resources in a sustainable manner. Article 71 requires parliament to enact legislation to ensure investments in property benefit local communities and their economies for exploitation of any of Kenya's natural resource.⁴

The Mining Act 2016

The Mining Act 2016 was enacted to give effect to articles 60, 62 (1f), 66(2), and 71 of the Constitution of Kenya as well as to streamline the mining industry and align it to the global trends.⁵ Section 30 of the Act establishes the Minerals Rights Board. The 9 member board was commissioned on July 19th 2017 and is now operational. Section 4 of the Act defines a mineral right to include a prospecting licence, mining licence, prospecting permit, mining permit

¹ National Council for Law Reporting. The Constitution of Kenya 2010

² Ibid.

³ Ibid.

⁴ National Council for Law Reporting. The Constitution of Kenya 2010

⁵ Kadima, Anne. Exploring: A detailed look at Kenya's Mining Act, 2016. August 15, 2016.

and artisanal permit. The power to grant mining rights is vested in the Cabinet Secretary on recommendation from the Mineral Rights Board. The Act recognizes artisanal and small scale miners, indicating that they are to be granted mining permits. It will therefore be possible for the small scale and artisanal miners to get mining technical advice. Small scale miners were illegal under the old Mining Act. Mainstreaming artisanal and small scale mining has a great potential to contribute to the growth of the county mining industry by generating employment and income for the residents.

On land compensation, Section 38 provides that consent is given when the owner of private land enters into a legal binding agreement with the applicant for the prospecting and mining rights or with the government allowing prospecting or mining operations or an agreement with the applicant for the prospecting and mining rights on consideration for adequate compensation. Land Compensation has been a major source of conflict as communities where mining take place claim that they are not compensated according to their land worth.

Section 42 stipulates the conditions related to mineral rights and provides that a mineral right may be granted subject to such conditions as may be determined by the Cabinet Secretary including but not limited to: (a) the protection of the mineral interests, (b) the protection of the environment, (c) community development, (d) safety and prospecting and mining operations, (e) health and safety of the persons undertaking those operations, (f) the protection of the lawful interests of the holders of any other mineral right and (g) the maximum number of blocks a person or a company may hold. There are however many issues raised on health safety and environmental degradation as a result of the extractive industries operations in Turkana County.

The Act requires the mining royalties to be split as follows: 70% to the National Government, 20% to the County Governments and 10% to the community where the mining operations occur. This means that the community is meant to benefit from the mining operations in the area. The Community Development Agreements are supposed to replace what Mining Companies did as Corporate Social responsibility (CSR), this means that the community informs what the companies do to develop and impact the lives of the residents in the areas.

On environment protection, Section 176 (2) of the Mining Act outlines that a mining licence shall only be issued to a person who has obtained an Environmental Impact Assessment licence and whose Environmental Management Plan has been approved. Section 179 requires a holder of a mining licence to take the necessary measures to ensure reclamation of land after mining and proper disposal of toxic waste.

On Mineral investment, under section 8, the mineral holder should give priority to the government to purchase the mineral before marketing it to other buyers. Section 22 establishes the National Mining Corporation whose function is to engage in mineral prospecting and mining and invest on behalf of the national government as far as the mining industry is concerned.

The Mining and Minerals Policy

The guiding principles of the policy are sound environmental protection, equity, transparency, accountability, public participation, and respect of social cultural values, promotion of value addition and the development of vertical and horizontal linkages to the local economies.⁶

The regulations provide a clear framework on land acquisition for mining in terms of compensation, relocation and resettlement of the affected people. The government is meant to deploy officers to the communities to facilitate negotiations of consent between the miners and the land owners and address community related needs to enhance harmony in the communities and minimize land conflict conflicts.⁷

The government is to undertake geological surveys and mapping of the country to provide information on mineral location and quantities, and publish geological mapping reports in order to assist in investment mining.⁸ This will be of great benefit to artisanal and small scale miners who cannot afford minerals prospecting.

Marketing and value addition of minerals will now be a reality thanks to the establishment of the Directorate of Mineral Promotion and Value Addition.⁹ This will extend technical assistance on mineral processing to the Artisanal miners.

The Petroleum Bill

The Petroleum Bill 2015 is yet to be enacted. However it is aimed at streamlining the petroleum industry and align it to the global trends.¹⁰ Clause 12 of the proposed Act proposes the establishment of a committee to be known as the National Upstream Petroleum Advisory Committee whose roles would include advising the Cabinet Secretary on upstream petroleum operations, negotiations of and entering into of petroleum agreements; suspension, revocation or termination of a petroleum agreement or the recall of a security given under the terms and conditions of a petroleum agreement; and assist in the development of a criteria for the negotiation of petroleum agreements between the Cabinet Secretary and a contractor;. Clause 14 and 15 of the bill proposes the formation of an Upstream Regulatory Authority (UPRA) and section 17 defines the community rights.

⁶ Ministry of Mining. Mining & Mineral Policy: The popular Version, 2016.

⁷ Ibid

⁸ Ibid

⁹ Ibid

¹⁰ Kadima, Anne. *Exploring: A detailed look at Kenya's Mining Act, 2016.* August 15, 2016.

The power to grant exploration and production rights is vested in the Cabinet Secretary on recommendation from the National Upstream Petroleum Advisory Committee. The Act recognizes the importance of local content through clause 77 (1) (c) indicating that The employment priority to be given to qualified and skilled Kenyans at all levels of value chain. The scope of local content is not only limited to local employment but also includes ownership, maximization of the use of local goods and services as well as research and development . This is further expounded in the Local Content Bill 2016. The local content bill is aimed at all commercial activities related to the exploration, extraction, development and exploitation of oil, gas and other mineral resources in the extractive industry in Kenya. Clause 4 of the local content bill charges the county government with the duty of supporting the national government in monitoring and implementing the crosscutting policies in relation to local content as well as the implementation of strategies that enable local participation in the various activities along the extractive value chain in the respective county;

Clause 51 (7) and clause 118 addresses Local community participation in award of Operational Permits however it does not adequately define, who, where and the procedure to participate.

The Petroleum requires the production royalties to be split as follows: 70% to the National Government, 20% to the County Governments and 5% to the community where the upstream operations occur. This means that the community is meant to benefit from the upstream operations in the area.

On environment protection, Section 86(1) - (3) and section 93 (1) and (2) of the Petroleum bill outlines that it is the role of the contractor to protect the environment and natural resources, including taking precautions to prevent pollution and ensure that the environment is restored as much as possible to its original condition prior to commencement of operations.

Methodology

The research applied descriptive research design, but more specifically baseline survey, in order to highlight the key elements of knowledge and policy gaps in extractive industry. The study used both qualitative and quantitative research methods. A literature review was done of documented studies and reports on the key issues of concern in extractive industries in respective counties. A total of 508 respondents were reached, out of the 616 copies of questionnaire that were distributed. The respondents were reached out in these numbers per county: Turkana 74; Taita Taveta 108; Migori 76 ; Lamu 81 ; Kwale 77 ; Kitui 92. There were also key informant interviews and focus group discussions that enriched the data: a total of 74 key informants interviews and 13 focus group discussions (FGDs) were conducted.

Purposive sampling was used to ensure that specific key informants were reached for relevant information. The samples were mainly from government officials, local population and civil society as well as oil companies. The key informants were identified based on their roles and level of knowledge in extractive industries. Key informants were drawn from the staff of extractive companies, community and religious leaders, civil society as well as the general public. The study did not aim at having a representative sample proportionate to the population in the counties of study. However, the selected individuals and groups played important roles in the extractive industries in the selected areas of study.

Objectives of the study

The overall objective of the study was to assess gaps in knowledge, particularly in relation to policy and advocacy strategies applied in addressing emerging challenges in the nascent extractive industry at the county level.

Specific Objectives:

- 1. Identify knowledge gaps in policy formulation and implementation
- 2. Examine stakeholder analysis on the priority areas of response
- 3. Identify specialized training required to fill the knowledge and capacity gaps

Conceptual framework

Social science theorists who relied on the frustration-aggression theory to explain violent behavior relied on peoples unfulfilled needs, but have since pointed to differences in what people feel they want or deserve, to what they actually get. When such expectations are not met, people can confront those they see as responsible for denying their ambitions.¹¹ This scenario forms the central argument of Ted Gurr's (1970) relative deprivation (RD) theory which holds that "the greater the discrepancy, however marginal, between what is sought and what seem attainable, the greater will be the chances that anger and violence will result".¹² It recognizes people's reactions to objective circumstances as depending on their subjective comparisons.¹³ The social

¹¹ Konkwo, Dede E.J. "Harnessing tradotronic media potentials for conflict resolution in Nigeria's Niger Delta." *International Journal of Social Sciences and Humanities Review* 2, no.4 (2011): 52.

¹² Ibid.

¹³ Konkwo, Dede E.J. "Harnessing tradotronic media potentials for conflict resolution in Nigeria's Niger Delta, 52.

psychological concept of RD postulates a subjective state that creates emotions, cognitions and behaviors and challenges the notion of absolute deprivation.¹⁴ Nafziger & Auvinen showed how income inequality, pervasive rent seeking by ruling elites, threats to the survival income of portions of a population, political decay, economic underperformance & competition for control of mineral exports bring about feelings of relative deprivation. They described how feelings of injustice within social groups emanate from perceptions of growing discrepancy between what such groups expect and what they have access to or desire to be in possession of. Such deprivation arises from either a vertical (class) or horizontal (regional or communal) inequalities foster social discontent which can provide a motivation for violence.

This study applied the RD as a conceptual framework to describe the circumstances under which communities in Turkana, Taita Taveta, Migori, Kitui, Kwale and Lamu counties may feel marginalized based on experiences of deprivation, especially poverty, which they may have encountered, and general expectations based on anticipation of the benefits from extractive industries. The theory was relevant in situating the poverty of knowledge that exist among counties administrators, civil society and general public who may not be exposed to existing policy and practice in extractive industries. While the existence such knowledge may have contributed to the crafting of relatively concrete national policies, the same may not be said of local level policy formulation and as such could compromise the RD that local actors may experience.

¹⁴ Pettigrew, Thomas F. "Relative Deprivation and Intergroup Prejudice." *Journal of Social Issues 64, no. 2 (2008):* 386

I. TURKANA COUNTY BASELINE SURVEY REPORT ON THE EXTRACTIVE INDUSTRY IN KENYA

Introduction

Turkana is an arid county in the northwestern part of Kenya and is home to pastoralist communities known as the Turkana and Samburu people. The area records high illiteracy levels, low rainfall and frequent droughts. The region is however one of the most marginalized in Kenya. With a population of 855,399 people, according to the 2009 national census, Turkana County is likely to be a major economic power in the coming years.¹⁵ Turkana is endowed with diverse minerals such as oil, gas, gold, gypsum, limestone and quartzite. The key mineral is oil found in Lokichar and Kapendo while gas found in Lokichar, Lochoremoi and West Turkana.

Contextual Analysis

Socio-Political Situation

Turkana is an arid county in the North West part of Kenya and is home to the pastoralist communities, mainly the Turkana and Samburu people. The county covers an area of 77,000 sq kilometers and has a population of about 1,427,797 at a rate of 6.4% growth rate from 855,399 from the 2009 Kenya population and Housing Census. ¹⁶The area records high illiteracy levels and low rainfall and frequent droughts.¹⁷ Loima Constituency, Tukana County has the highest illiteracy levels in Kenya as 92% of its population has never gone to school. There are perennial armed conflicts between Turkana, Samburu and Pokot mainly for cattle rustling and territorial

¹⁵ Kenya National Bureau of Statistics, "Kenya Population and Housing Census 2009" available at https://www. knbs.or.ke/?option=com_phocadownload&view=category&id=109%3Apopulation-and-housing-census-2009&Itemid=599%2F (accessed on 28/07/2017)

¹⁶ County Government of Turkana, "Turkana County Investment Plan" available at http://www.turkana.go.ke/ index.php/documents/county-investment-plan-2016-2020/ 9 accessed on 28/07/2017)

¹⁷ Kenya National Bureau of Statistics & Society For International Development, "Exploring Kenya's Inequalities: Pulling Apart or Pooling Together" available at http://inequalities.sidint.net/kenya/wp-content/uploads/ sites/3/2013/10/SID%20Abridged%20Small%20Version%20Final%20Download%20Report.pdf

control of pasture and water. Recent boundary conflicts between 'Turkana and Marakwet' have been influenced by political territorial control for areas likely to have high potential for minerals. These conflicts have led to proliferation of small arms within the region. The county records high poverty levels with 87.5% of its population living below poverty line despite the large mineral deposits. Turkana has a dependency ratio of 0.9, a poverty gap of 29% stated as a percentage of poverty line, while the severity of poverty is measured at 11% and also expressed as a percentage of the poverty line.¹⁸ It has employment rates of 6% and with the above contributes to a Gini coefficient of 0.28. ¹⁹ Added to this, the county only had 39% of its water sources improved & has only 2% electricity coverage.²⁰ It is a drought affected area due to its hot climate resulting to famine and food shortage as farming is not viable in such climatic conditions.²¹ The map below in Figure 1 shows the position of Turkana County on the map of Kenya.



Figure 1: Map of Kenya showing location of Turkana County

Source: Wikimedia - https://www.google.com/Wikimedia

¹⁸ Kenya National Bureau of Statistics & Society For International Development.

¹⁹ Ibid.

²⁰ Ibid.

²¹ County Government of Turkana, "Annual development Plan 2015-2016" available at http://www.turkana. go.ke/wp-content/uploads/2016/10/Annual-Development-Plan-2015-2016.pdf (accessed on 28/07/2017)

Mineral Resource Distribution

Oil is the key mineral in Turkana and is currently found in Lokichar, North Turkana and Kapendo, while gas is found in Lochoremoi, Lokichar and West Turkana. Table 1 below shows the minerals found in Turkana County, their location, use and level of exploitation.

No.	Mineral	Location	Typical Use	Level of Exploitation
	Garnet	Occurrence fairly spread: needs fur- ther exploration	Gemstones and used in indus- try as abrasives	Untapped
	Gypsum	Kapua in Ka- lokol, Nakaale in Kalapata and Naposimoru in Lokichar	Cement industry, in fertilizers, as filler in various materials such as paper and paint, and in the manufacture of Plaster of Paris	There is near artisanal activity. The potential is huge for local and regional cement manu- facturers
	Iron Ore	Lokichar, Kaal- eng, Kaeris and Lapur	Castings, wire, rod, sheet	Untapped
	Magnesite	Occurrence fairly spread: needs fur- ther exploration	Refractory bricks, furnace lin- ings and crucibles	Untapped
	Oil	Lokichar Basin	Petroleum ether, petroleum spirit, kerosene or paraffin, diesel oil, lubricating oil and fuel oil	Exploration at advanced stage and commercial viability established.
	Silver	Kaeris, Songot and Lokichar	Electrical engineering, elec- tronics, chemical plant, and certain brazing alloys	Untapped
	Talc	Occurrence fairly spread: needs fur- ther exploration	Manufacture of paint, roofing felts, rubber and ceramics.	Untapped
	Geother- mal	Koyasa, Eliye, Lomonakipi, Muruatapa, Lobiritit and Kapendo	Generation of green energy	There are a few compa- nies that have expressed interest and discussions with the county are ongoing.

Table 1: Minerals found in Turkana County, their location, use and level of exploitation

Source: Turkana Resource Maps.²²

²² See: http://www.turkana.go.ke/wp-content/uploads/2016/11/TURKANA-Resource-maps.pdf

The map below in Figure 2 shows the minerals found in Turkana County and their locations.





Source: Turkana Resource Maps.²³

The land in Turkana is held by the pastoralist communities and forms part of community land as defined under Article 63 of the Constitution. Part of the land is public land allocated as oil blocks in agreements with investors. Article 62(1) (f) defines public land to include all minerals and mineral oils as defined by law.²⁴

Even though Turkana County does not have an elaborate Mining Policy, there have been a number of administrative initiatives that could later inform policy formulation and implementation. Such include, Turkana County Investment Plan 2016-2020 and the County Resource Maps

²³ Source:http://www.turkana.go.ke/wp-content/uploads/2016/11/TURKANA-Resource-maps.pdf

²⁴ National Council for Law Reporting. *The Constitution of Kenya 2010*

document that shows the mineral and natural resource potential of the County. The Turkana County Investment plan 2016-2020 however identifies the opportunities that the mining industry presents to the county and the measures that should be put in place to ensure that the County benefits from the extractive industry. The plan proposes among other measures: enhancing the capacity of Artisanal Miners particularly those involved in gold mining, establishing a value addition gemology centre for marketing of gemstones and investment in research to establish the commercial viability of copper, iron ore and manganese deposits in the county. ²⁵ The key issues of concern are conflict, environmental protection and benefit sharing of the proceeds between the two levels of government and the communities. The table below is a representation of minerals currently being mined.

Mineral	Mineral Location
Oil	Lokichar, South Turkana, Kapendo
Gas	Lokichar, West Turkana, Lochoremoi
Gold	Makutano, Turkana North, Loima, Nakaalale
Gypsum	Napusmorui, East Turkana, Kapua, Central Turkana, Lokichogio, Kalakol
Limestone	Kaeris, Lokiriama
Quartzite	Kaptir

Table 2: Minerals currently being mined and their location

Source: Research findings

All the respondents in the study were aware of the two main minerals in the county, namely oil and gas. Some respondents also cited like gold, gypsum mined by artisanal miners in Kalakol, Kapua and Napusmorui; as well as limestone deposits in Kaeris Ward and Lokiriama and the Kaptir area which is part of the Mozambique belt and has the crystalline limestone and quartzites.

The companies involved in oil extraction include: Tullow Oil Company, Africa Oil, Compañía Española De Petróleos (CEPSA), and Maersk Oil and Gas. The Lamu Port South Sudan Ethiopia Transport (LAPSET) corridor in form of a road network and an oil pipeline are under construction and planned to traverse Turkana and link the port of Lamu with East African countries, that is, South Sudan, Uganda and Ethiopia.²⁶

²⁵ See note 1 WHAT IS THIS NOTE? SIMPLY GIVE CITATIONS

²⁶ Kennedy Mkutu & Gerard Wandera, "Conflict, Security and the Extractive Industries in Turkana, Kenya: Emerging issues 2012-2015" available at: <u>http://crimeresearch.go.ke/phocadownload/Conflict and</u> <u>Extractive Industries in Turkana_FINAL_2016_Lo-res.pdf</u> (accessed on 17/07/2017)

Tullow Oil is a multinational oil and gas exploration company founded in Tullow, Republic of Ireland, with its headquarters in London, United Kingdom. It is an independent oil and gas exploration and production company, focused on finding and monetizing oil in Africa and South America. The company has interests in over 150 licenses across 25 countries with 67 oil producing fields. Tullow Oil has already managed to produce 40,000 barrels of oil which they had planned to export in June 2017 but were unable to as they could not access two of their sites due to insecurity in the county The EOPS is now expected to commence in early 2018²⁷. The company works in partnership with Africa Oil, Maersk Oil and Gas and Compañía Española de Petróleos (CEPSA)²⁸.

Compañía Española de Petróleos (CEPSA) is a Spanish firm owned by Abu Dhabi's sovereign wealth fund. It has interests in oil and gas exploration. CEPSA Kenya limited in conjunction with Environmental Remediation Holding Corporation (ERHC Energy, Inc), an American based firm, which recently got a licence to explore and drill oil on Block 11A in Turkana.

Africa Oil Corporation is a Canadian oil and gas company with assets in Kenya and Ethiopia, and an equity interest in Africa Energy Corp. Currently it has interests on the northern end of South Lokichar Basin where it has a 25% working interest in two blocks with Tullow oil holding 50% interest. Maersk oil and gas holds the remaining interests.

The Table 3 below shows the companies involved with extractive operations in Turkana County, their countries of origin and the resource they exploit in the county.

Company	Country of Origin	Resource Exploited
Tullow Oil	Ireland	Oil and Gas
Compañía Española De Petróleos, S.A.U (CEPSA)	Spain	Oil and Gas
Africa Oil Corporation	Canada	Oil and Gas
Maersk Oil and Gas	Denmark	Oil and Gas
Delonex Energy	Kenya	Oil and Gas

Table 3: Oil and Gas exploration and production companies in Turkana County, their origin and resource they exploit

Source: Research findings

²⁷ Tullow Oil plc – November trading update, available at: www.tullowoil.com (accessed on 8/11/2017)

²⁸ Tullow group License list, August 2017, available at: www.tullowoil.com (accessed on 8/11/2017)

Emerging Issues of Concern

Conflicts

Conflict between the oil companies and the community

Respondents indicated that government has entered into agreements with investors without public involvement of the community members. The government of Kenya signed a production agreement with Tullow Oil and an early oil pilot scheme agreement with Tullow Oil, Africa Oil and Maersk Oil and Gas for exportation of crude oil in March 2017. The community is not aware of the content of these agreements and how their lives will be impacted by the exportation of the crude oil.

Limited information is given by Tullow Oil to the residents on their operations, the effect of their operations on the community and benefit sharing structure, if any.²⁹ There was a general feeling of marginalization by the community, particularly given that they do not sufficient access to employment opportunities, although this is equally largely due to low levels of skilled labour in the region.

Land related conflict

The emergence of mining industry has introduced new land conflicts. The Turkana people who communally owned land now find themselves having to compete with private investors who are rapidly acquiring land for mineral exploration. The land surface from Lodwar to Lokichar has largely been marked for exploration. Land title deeds have been illegally acquired and land leasing prices have rapidly risen. There have been cases where clan elders sold land and later claimed the same land from the purchasers after oil discovery with claims from the former that they were not aware of the mineral value of the land, and subsequent impact on the community.³⁰ Oil installations have displaced pastoralists' community from their grazing land and migratory routes. During exploration, 13 acres of land were fenced off for each well resulting to livelihood difficulties and anxiety.³¹ It is unclear how much of the land ultimately will be inaccessible to the pastoralists.

²⁹ Institute of Human Rights and Business and Kenya National Commission on Human Rights, "Security and Human Rights in Kenya's Extractive Sector: Briefing Paper February 2015" available at <u>http://psm.du.edu/</u> media/documents/reports and stats/think tanks/ihrb kenya security 2015.pdf (Accessed on 18/07/2017)

³⁰ County Government of Turkana, "Annual development Plan 2015-2016" available at http://www.turkana. go.ke/wp-content/uploads/2016/10/Annual-Development-Plan-2015-2016.pdf (accessed on 28/07/2017)

³¹ United Nations Development Programme, "Extractive Industry for Sustainable Development in Kenya: Final Assessment Report: September 2014" available at <u>www.ke.undp.org/.../Extractive%20Industries%20for%20</u> <u>Sustainable%20Development</u> (Accessed on 18/07/2017)

There have been conflicts among the members of the community fighting for grazing land and water. Majority of the adult males in Turkana own guns largely used for cattle rustling. Respondents raised concerns over the fact that the oil discoveries near the Pokot-Turkana border have fueled violence between the Turkana and Pokot communities after mineral explorations established that there are large deposits of oil in the region. The Pokot have laid claim on the discovered oil fields. This is one example in which future mineral discoveries could lead to major conflicts between communities.

Environmental Protection

The findings indicate that there is a general concern by the community over environmental degradation. Even though the mining industry is still at its nascent stages there are already signs of the negative impact on the environment. Community leaders in Lodwar were categorical that oil exploration and production will destroy their grazing land, ancestral shrines and disrupt their livelihood. While National Environmental Management Agency (NEMA) has initiated cultural talks to protect the sacred shrines of the Turkana people there are still cases of destruction of sacred shrines to give room to mining or acquisition of land with sacred shrines for prospect mining. Section 58 of the Environmental Management and Coordination Act provides that an Environmental Impact Assessment needs to be carried out for all projects that are likely to have an adverse effect on the environment. One of the requirements when applying for a mining licence is the production of the Environmental Impact assessment report/licence. The companies or legal persons carrying out mining or mineral exploration in Kenya are supposed to comply with the provisions of the Environmental Management and Coordination Act of 1999 and the Environmental Impact Assessment and Audit Regulations of 2003.³²

Oil extraction can have adverse effects on the environment particularly in relation to possible oil spills which could release dangerous carcinogenic hydrocarbons into soil and water which subsequently could reduce plant growth. This could threaten the ecosystems of both the animals and human beings. Gas flares caused by the burning off of gas mixed with the oil release of carbon dioxide, methane and toxic compounds that disrupt fish and animals' ecosytems and subsequently, their breeding patterns. Toxic wastes may kill plants and animals and contaminate water therefore damaging plants, animals and fish.³³

³² Tullow Oil, "Kapese Integrated Support Base Environment and Social Impact Assessment study" available at http://www.tullowoil.com/Media/docs/default-source/operations/kenya-eia/4080-01-kapese-isb-esia-studyvolume-i-r2-_02-17-2015_-final.pdf?sfvrsn=2 (Accessed on 19/07/2017)

³³ County Government of Turkana, "Annual development Plan 2015-2016" available at http://www.turkana. go.ke/wp-content/uploads/2016/10/Annual-Development-Plan-2015-2016.pdf (accessed on 28/07/2017)

Tullow Oil Environmental and Social Audit plan include an integrated waste management facility, waste water treatment facility and an Environment and Social Management Plan. The plan is designed to mitigate on the negative effects that the company's operations will have on the environment.³⁴ These mitigation measures include training company personnel to refrain from indiscriminate waste disposal, servicing vehicles and equipment to prevent contamination of soil from oil and hydraulic fluid leaks. It also refers to servicing vehicles on impermeable surfaces as well as providing adequate drainage around the construction of campsites.

Insecurity

Turkana County has experienced diverse security concerns. These include cattle rustling, proliferation of small arms, porous borders with countries in conflict such as Somalia and South Sudan. Persisted armed banditry have discouraged investors. For example, a company contracted to upgrade the Turkana-Kitale road leading to the oil fields has suspended operations after its employees were attacked³⁵. In June this year, Tullow Oil was unable to export 40,000 barrels of oil as they could not access two of their sites where the oil is stored due to insecurity in the County.

Benefit Sharing

The discovery and exploration of oil in Turkana has led to increased communities' sense of entitlement to the oil reserves.³⁶ In a focus group discussion in Lokichar, it emerged that the leaders in Turkana have been advocating for 10% benefit share of the oil proceeds while the National government wants it reduced to 5%. In January 2017, the president declined to assent into law the Petroleum Exploration and Production bill. The bill proposed that the local communities would receive 10% of profits from oil production while the counties would receive 20%.³⁷

³⁴ Tullow Oil, "Kapese Integrated Support Base Environment and Social Impact Assessment study" available at http://www.tullowoil.com/Media/docs/default-source/operations/kenya-eia/4080-01-kapese-isb-esia-studyvolume-i-r2-_02-17-2015_-final.pdf?sfvrsn=2 (Accessed on 19/07/2017)

³⁵ Vincent Achuka, "Oil Export Plan in Limbo as Tullow Threaten Pull Out of Turkana oil Fields" available at https://www.standardmedia.co.ke/business/article/2001245230/oil-export-plan-in-limbo-as-tullow-threatens-to-pull-out-of-turkana-oil-fields (Accessed on 19/07/2017)

³⁶ George Wachira, "Reality Check of Promised Quick Exports of Turkana Oil" available at http://www. businessdailyafrica.com/analysis/A-reality-check-on-promised-quick-exports-of-Turkana-oil/539548-3785542-jtxjm2z/index.html (Accessed on 19/07/2017)

³⁷ Oil News Kenya, "Kenya's National Assembly Adopts the Petroleum (Exploration, Development and Production) Bill "available at http://www.oilnewskenya.com/kenyas-national-assembly-adopts-the-petroleumexploration-development-and-production-bill/ (Accessed on 19/07/2017)

The Mining Act requires the mining royalties to be split as follows: 70% to the National Government, 20% to the County Governments and 10% to the community where the mining operations occur. This means that the community is supposed to benefit from the mining operations in the area. The Community Development Agreements are supposed to replace what Mining Companies did as Corporate Social responsibility (CSR). The community will have the responsibility of proposing essential community services and development initiatives that companies should be involved in from the research findings it emerged that the community needs to be empowered in order to negotiate for community development initiatives.

Research findings

Perceptions on existing policies

The majority (46%) of the respondents were of the view that there was a policy on the extractive industry in the county. A total of 40% of the respondents were aware that the county had no mining policy while 15% were ignorant of whether there is a policy or not. This established a knowledge gap on the county laws and policies. The confusion around the existence or not of the mining policy is an indication that the term 'policy' relayed different connotations to different people. There are those who simply understood 'policy' as a county plan to protect the mines and ensure benefits to the people; other understood policy to mean the right of the county to have its 20% constitutional share of the profit from the mines; while others considered policy to refer to clear county strategy for managing natural resources. This variation in interpretation of the term 'policy' is a clear indication of the knowledge gap among the county residents and the need to incorporate them in the policy making processes.

Turkana County has no extractive industry policy. On the other hand mining is yet to be a devolved function and as such all mining activities are regulated by the Mining Act 2016 and the Mineral and Mining policy of 2016. Even though Turkana County does not have an elaborate mining policy, there have been a number of administrative initiatives that could later inform the actual development of a mining policy. Such include, Turkana County Investment Plan 2016-2020 and the County Resource Maps document that shows the mineral and natural resource potential of the County.

The Turkana County Investment Plan 2016-2020 identifies the opportunities that the mining industry presents to the county and the measures that should be put into place to ensure that the county benefits from extractive industry. The plan proposes among other measures: enhancing the capacity of artisanal miners particularly those involved in gold mining, establishment of a value addition gemology centre for marketing of gemstones and investment in research to establish the commercial viability of copper, iron ore and manganese deposits in the County. Figure 3 below shows the perceptions on the existence of the extractive industry policy in Turkana County



Figure 3: Perceptions on existence of extractive industry policy in Turkana County

Source: Research findings

Community participation in decision making

On community participation, 81% of the respondents agree that they should participate more in decision making regarding extractive industry operations in this County. Limited information is given by Tullow Oil to the residents, particularly in relation to operations, the effect of their operations on the community and benefit sharing. The government of Kenya signed an Early Oil Pilot Scheme agreement with Tullow Oil, Africa Oil and Maersk Oil and Gas for exportation of crude oil in March 2017. The community is not aware of the content of this agreement and how their lives will be impacted by the exportation of the crude oil. There is need for stakeholder engagement between the community, County and National government in signing concession agreements with the mining companies.

Impact on the extractive industry

Figure 4 below shows the impact of the extractive industry on livelihoods in Turkana County. The impact was measured by asking respondents to indicate the extent of positive effect of extractive industries on people's livelihood particularly in relation to income, employment, health and education.

Figure 4: Impact of the extractive industry on livelihoods in relation to income, employment, health and education



Source: Research findings

Benefits to the community accruing from the extractive industry

Income

The respondents indicated that Tullow Oil has run innovative and creative projects to empower the community through enterprise development centers. The company has employed local people but only within lower grades given the fact that the region has limited number of qualified personnel. However, Tullow has been sponsoring Turkana students in mining industry with the intention of reinserting them into the industry once they get academic qualification. These include the fodder crops growing project for the animals in Lokichar and the irrigation scheme at Lokoli which have contributed to increased income for the pastoralist community. A women group in Lokichar has been funded to start a poultry project

Majority of community members held the opinion that there had been few low level employment opportunities for the locals by the employment companies. From the findings, the oil companies have employed few unskilled laborers owing to the high levels of illiteracy in the County.

Provision of health facilities

Healthcare facilities have been built in Kanamkemel, Lokoli and Lokichar by the oil companies. This has improved access to health in these location, particularly given that to a great extent the northern region has been neglected by the government and has very meagre basic social services.

Education

The companies have built classrooms in schools and bought desks, books and uniforms for Primary and secondary school students. There is a bursary scheme for needy and bright primary and secondary school children as well scholarships to study abroad for bright students joining universities. Tullow Oil has a scholarship program for specialized studies in mining. Selected students are often sent abroad to carry out these studies with the intention that they would come back and work in the mining industry. However, this scholarship program has since stopped and the company is only paying for students already in the program and not taking new ones.

Infrastructure development

The mining companies have jointly worked towards improving the road network in Lokichar area and supporting security structures through installation streetlights in Lokichar Township. However, respondents were of the view that Tullow only repaired and worked on roads in which they had interest and meant to facilitate their operations. While mining companies have sunk boreholes to provide water to the local communities, the water deficit is still high. In focus group discussion in Lodwar there was emphasis on coordination of water provision between the mining companies and county government. The respondents appreciated efforts towards water provision in the county.

Overall Expectation on Corporate Social Responsibilities

The general expectation by the respondents was that companies operating in the county need to do more for the community. This is demonstrated in Figure 5 below. On social amenities, 32% of the respondents would like the companies to construct more schools and healthcare facilities. On education, 13% of respondents would like the companies to provide more scholarships. On provision of clean water, 10% of the respondents would like to see more provision of clean water.



Figure 5: Overall expectations on Corporate Social Responsibility in Turkana County

Source: Research findings

On infrastructure development, 4% of the respondents would like the companies to construct more roads. Some respondents, 29 %, were of the opinion that the companies should do all the above, that is, provide clean water, build roads, provide scholarships and construct schools and health facilities. Other projects proposed by 12% of the respondents include: improvement of security in the county; mitigation of negative environmental effects; employment of the locals to boost the local economy; and initiation of other livelihood projects in the area.

The above expectations indicate that the emergence of extractive industries has raised expectations on basic social services and that there is a misunderstanding that mining companies should take the responsibility of providing services normally carried out by government. The findings are an indication that there is need to raise awareness on the importance of corporate social responsibility and its complementary role to provision of services that should normally be provided by the government.

Impact on environment

The extractive industry has had a negative effect on environment. Majority of the respondents, 97%, held the view that the operations of extractive industry in the county had a negative effect on the environment while 3% intimated that there was no negative effect on the environment. Such negative effect include air pollution by the mining companies, noise pollution, deep excavations

that could in future become wasted lands, as well as possible pollution of underground water table. Respondents also indicated that there is evidence of negative effects on the health of personnel working at the mining sites. For example, a few respondents indicated that some of the miners who work as mud-mixers have died from chemical infection.

In both individual and focus group discussions a number of steps were proposed to address environmental degradation by the mining companies. These included, establishing environmental community watch dog that would keep checks and balances on the mining companies; develop advocacy strategies against environmental pollution; engage with environmental experts that could guide the county government in establishing international standards for inter-generational environmental protection, both immediate and long term. Other measures include; strict adherence to the provision of the Environmental Management and Coordination Act of 1999 and the Environmental Impact Assessment and Audit Regulations of 2003 on Environmental impact assessment and implementation of the environmental management plans.

Impact on conflict

There have been land ethnic and political conflicts in the area since the discovery of oil. Majority of the respondents, 57%, were of the opinion that land conflicts ranked high followed by political conflicts at 30% and lastly ethnic conflicts at 13%.

There is a general feeling by the community that their land is being exploited by foreigners and they are not gaining much from it. Land title deeds have been illegally acquired and land leasing prices have rapidly risen. Oil installations have displaced pastoralists' community from their grazing land and migratory routes. During oil exploration, 13 acres of land were fenced off for each well resulting to livelihood difficulties and anxiety. It is unclear how much of the land will ultimately be inaccessible to the pastoralists.

Turkana and the Pokot are two ethnic groups that live on either sides of the oil reserves and have engaged in violent armed conflicts. For centuries, they have had conflicts over access to water points and grazing land, but now the Pokot want a stake in the oil wealth leading to violent attacks between the two communities.

In a focus group discussion in Lokichar, respondents held the view that political leaders have incited the Pokot in the neighboring Turkana County to fight the Turkana and gain access to the oil fields. The political leaders have also incited communities against the oil companies leading to insecurity in the region. A respondent from Tullow Oil asserted that in June this year, Tullow Oil was unable to export 40,000 barrels of oil as they could not access two of their sites where the oil is stored due to insecurity in the county. Figure 6 below shows the impact of the extractive industry on conflict in the county.



Figure 6: Impact of the extractive industry on conflict in Turkana County

Source: Research findings

Conflict intervention mechanism

There is minimal government intervention on conflicts. From the findings, nongovernmental organizations (NGOs), community based organization (CBOs) and faith based organizations (FBOs) ranked highest in conflict resolution in extractive industry. These organizations were said to be better informed on matters related extractive industry and were vital in increasing knowledge capacity among community and advocacy for the needs of the Turkana people. The Catholic diocese of Lodwar through its justice and peace department had resolved a number of conflicts between the Pokot and Turkana. Figure 7 below rates the interventions of various actors in addressing conflicts in the extractive industry in Turkana County.
Figure 7: Rating of various actors in addressing conflicts in Turkana County's extractive industry



How would you rate the following actors in addressing conflicts in Extractive industry in Turkana County?

The mechanisms proposed by the respondents to address conflicts arising from the presence of the extractive industries in the county included: training community leaders over details on the components of extractive industries such as corporate social responsibility; regulations over environmental management; and training on mediation between community and mining companies as well as between different ethnic communities over land conflicts generated by the desire to control mineral deposits. Other mechanisms suggested by the respondents to address conflicts included: supervised dialogue between the conflicting parties; equal distribution of social amenities such as schools and health care facilities among the host communities in the region; employment of the local community members in the oil companies without ethnic profiling. Of major concern was the fact that even among the people of Turkana clan or regional profiling was very strong. For example, Turkana people who are not from South Turkana could not be allowed to work in Lokichar, located in the southern part of Turkana county; training community leaders on conflict resolution and community participation in decision making on matters that affect community.

Assessment of Community Chartered Mediators

From the findings there is low capacity at the community level to respond to the diverse conflicts and knowledge gaps. The Catholic Diocese of Lodwar has a Peace and Justice Department whose members have been trained on conflict resolution and could intervene on behalf of the community on issues of conflict arising from the extractive industry. Friends of Lake Turkana (FOLT) have also been trained on conflict management and resolution but not specifically on the extractive industry.

The following organizations were identified as actors that can be trained to intervene on behalf of the community on issues regarding extractive industries: public relations officers; faith based organization and NGOs such as, the Catholic justice and peace initiative; Turkana Muslim Consortium; and APEI women group.

Areas of training to enhance community participation in the extractive industry

The majority of the respondents were of the view that the community needs to be empowered in order to improve its participation in the extractive industry. The proposed areas of training included: awareness creation on community participation, conflict management and resolution, benefits-sharing of the proceeds from the extractive companies and advocacy on environmental protection. These suggestions complement the ones stated above in relation to conflict resolution mechanisms.

Policy recommendations

National government

The National Land Commission needs to deal with the complexities on land ownership and compensation of land that is currently fenced off for mineral prospecting. This will reduce the cases of land conflict in the county as the land is communally owned.

There is need for stakeholder engagement between the community, county and national government in signing concession agreements with the mining companies. This will reduce conflicts between local community and mining companies. The exportation of oil by Tullow Oil Company for instance has been disrupted by the community as the latter feel that their expectations and grievances have not been met.

County government

The County government needs to work with the National Environmental Management Authority to ensure the Environment Impact Assessment of projects are done and mitigation factors in the environmental management plans are employed particularly in reclaiming land and conserving the environment to reduce harmful effects of the extraction of minerals and oil on the environment and the community.

CSOs, NGOs, MNCs

The Civil society and nongovernmental organizations need to educate the community on the impact of the presence of the extractive industries on their livelihood, land ownership and social life. They should strengthen their interaction with the community and help resolve the unmet expectations between the community and the mining companies.

Academic institutions

Academic institutions should offer training in mining and provide scholarships for the marginalized communities in northern Kenya. This will enable the mining companies to employ more local people and subsequently improve local economy. To a great extent the mining companies employ few local people because the latter lack the skills to work in the extractive industry.

Conclusion

This research was carried out to assess the existing capacity at the Turkana County level, particularly in addressing challenges and opportunities of the extractive industries sector and identification of gaps in knowledge, policy, advocacy and research.

The research applied descriptive research design, but more specifically baseline survey, in order to highlight the key elements of knowledge and policy gaps in extractive industry. The study used both qualitative and quantitative research methods. A documentary review was conducted on the key issues of concern in the extractive industry.

From the findings, knowledge gaps were identified on county laws and policies. The county has no extractive industry policy yet some respondents were of the view that the county had a policy governing the extractive industry. Most of the community respondents were unaware of the provisions of the Mining Act 2016 and the Mineral and Mining policy 2016 and how their lives are affected by the legal framework. There is no clear conflict resolution mechanism on the issues arising from the extractive industry in the county and the community does not have clear reporting channels of the conflict. There is therefore need to train community mediators to handle conflict resolution and handle disputes arising from the presence of the extractive industry in the county.

Specialized trainings required to fill the gaps were identified as: awareness creation on community participation, conflict management and resolution, benefit-sharing of the proceeds of the production by the extractive companies and advocacy on environmental protection.

REFERENCES

- Dr John Kakoge, "Maximizing the Benefits of Oil and Water Discoveries in Turkana, Kenya." Available at: https://www.pambazuka.org/land-environment/maximizing-benefits-oiland-water-discoveries-turkana-kenya
- Eliza Johannes et al, "Oil Discovery in Turkana County, Kenya: A Cause of Conflict or Development?" Available at: http://www.tandfonline.com/doi/pdf/10.1080/19376812. 2014.884466
- George Wachira, "Reality Check of Promised Quick Exports of Turkana Oil." Available at: http://www.businessdailyafrica.com/analysis/A-reality-check-on-promised-quickexports-of-Turkana-oil/539548-3785542-jtxjm2z/index.html
- Institute of Human Rights and Business and Kenya National Commission on Human Rights, "Security and Human Rights in Kenya's Extractive Sector: Briefing Paper February 2015." Available at: http://psm.du.edu/media/documents/reports_and_stats/think_tanks/ ihrb_kenya_security_2015.pdf
- Kadima, Anne, "Exploring: A detailed look at Kenya's Mining Act, 2016." Available at: http://www.oraro.co.ke/alert/exploring-a-detailed-look-at-kenyas-mining-act-2016/
- Kennedy Mkutu & Gerard Wandera, "Conflict, Security and the Extractive Industries in Turkana, Kenya: Emerging issues 2012-2015" Available at: http://crimeresearch.go.ke/ phocadownload/Conflict_and_Extractive_Industries_in_Turkana_FINAL_2016_Lo-res. pdf
- Kenya School of Government, "Proceedings of the Meeting on Conflict, Security and the Extractive Industry: The Case of Turkana" Available at: http://cvpt-resource.org/wp-content/uploads/2016/01/Conflict-and-the-Extractive-Industry-Meeting-Report-2016. pdf
- Konkwo, Dede E.J. "Harnessing tradotronic media potentials for conflict resolution in Nigeria's Niger Delta." Available at: https://www.researchgate.net/profile/Emmanuel_Amoo2/publication/256216509_Home-based_female_sex_workers_and_exposure_to_HIV_in_Suburb_of_cities_in_Nigeria_IJSSHR_-_Vol2_No4_4th_edition_2011/links/0046352206da8705eb000000/Home-based-female-sex-workers-and-exposure-to-HIV-in-Suburb-of-cities-in-Nigeria-IJSSHR-Vol2-No4-4th-edition-2011.pdf#page=52
- Nafziger Wayne, E. & Auvinen Juha, *Economic development, inequality, war, and state violence*, 2001. Available at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.667.7500&rep=rep1&type=pdf
- National Council for Law Reporting. "The constitution of Kenya, 2010". Available at: https://

www.kenyaembassy.com/pdfs/the%20constitution%20of%20kenya.pdf

- Oil News Kenya, "Kenya's National Assembly Adopts the Petroleum (Exploration, Development and Production) Bill." Available at: http://www.oilnewskenya.com/kenyas-nationalassembly-adopts-the-petroleum-exploration-development-and-production-bill/ United Nations Development Programme, "Extractive Industry for Sustainable Development in Kenya: Final Assessment Report: September 2014." Available at: www.ke.undp.org/.../ Extractive%20Industries%20for%20Sustainable%20Development
- Pettigrew, Thomas F. "Relative Deprivation and Intergroup Prejudice." Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1540-4560.2008.00567.x/pdf
- United States International University- Africa (USIU-A) & Kenya School of Government (KSG) "Conflict, Security and the Extractive Industries in Turkana, Kenya: Emerging Issues 2012-2015." Available at: http://crimeresearch.go.ke/phocadownload/Conflict_and_Extractive_Industries_in_Turkana_FINAL_2016_Lo-res.pdf
- Vincent Achuka, "Oil Export Plan in Limbo as Tullow Threaten Pull Out of Turkana oil Fields." Available at: https://www.standardmedia.co.ke/business/article/2001245230/ oil-export-plan-in-limbo-as-tullow-threatens-to-pull-out-of-turkana-oil-fields

II. TAITA TAVETA COUNTY BASELINE SURVEY REPORT

Introduction

Taita Taveta is a semi-arid county in the coastal part of Kenya and is home to the Wadawida, Wasaghala and Wataveta communities who are the natives and the Kamba community from the neighboring Makuen County. According to the 2009 national census, the county has a population of 284,657 people.¹ The county records low rainfall and frequent droughts, hence only 2.5% of the county can be classified as high potential area. The highlands of Taita Taveta County are experiencing high human population pressure and ongoing down-slope migration into the agro-Sahel (semi and lowlands). More than 60% of the county is covered by the Tsavo East and West national parks thus further restricting settlements in the lowlands and creating an additional problem, the human-wildlife conflict.² Taita Taveta County is endowed with diverse minerals such as iron ore, manganese, marble, quartz, graphite, copper and precious stones, namely tsavorite, garnets (Chawia change colour garnet, green and red garnet), tourmaline (yellow and green), ruby, sapphire and rhodolite. This study was conducted in Mkuki, Chungaunga, Kishushe, Alia, Kasigau, Wundanyi and Kamtonga areas of Taita Taveta County.

Contextual analysis

Socio-Political Situation

Taita Taveta county covers an area of 17, 083 km² of which 11,100 km² is the area covered by Tsavo East and Tsavo West National Parks. According to the 2009 Kenya population and housing census, the county has a population of about 284,657.³ The population is projected to

Kenya National Bureau of Statistics, "Kenya Population and Housing Census 2009" available at: https://www. knbs.or.ke/?option=com_phocadownload&view=category&id=109%3Apopulation-and-housing-census-2009&Itemid=599%2F (Accessed on 06/08/2017)

² County Government of Taita Taveta, "Taita Taveta County Integrated Development Plan" available at: http://taitataveta.go.ke/sites/default/files/Taita%20Taveta%20CIDP%20as%20at%207th%20August%20 2014.pdf (Accessed on 10/08/2017)

³ Kenya National Bureau of Statistics, "Kenya Population and Housing Census 2009" available at: https://www. knbs.or.ke/?option=com_phocadownload&view=category&id=109%3Apopulation-and-housing-census-2009&Itemid=599%2F (Accessed on 07/08/2017)

have increased to 345,800 in 2017 at a growth rate of 1.6%.⁴ The county records high illiteracy levels with 60% of its population having attained only primary level of education and 21% of the residents with secondary level of education and above.⁵ Taita-Taveta has a dependency ratio of 0.8, with 50% of its individuals living below the poverty line, a poverty gap of 16% stated as a percentage of poverty line, while the severity of poverty is measured at 7% and also expressed as a percentage of the poverty line.⁶ It has employment rates of 25% and with the above contributes to a Gini coefficient of 0.44. ⁷ Added to this, the county had 63% of its water sources improved & has only 15% electricity coverage.⁸ Figure 8 shows the location of Migori County in Kenya.

There are land conflicts in Taita Taveta County owing to the fact that most land owners lack title deeds, which has led to illegal acquisition of land. Taita Taveta residents who communally owned land now find themselves competing with private investors who are illegally acquiring land for mineral exploration. The elite and some investors have taken advantage of land owners without land title deeds and registered the lands as their own, displacing the rightful land owners.

Mineral resource Distribution

Taita Taveta County is endowed with five types of industrial minerals, namely iron ore, manganese, copper, quartz, and graphite, and seven types of gemstones, which include garnets (green, red and Chawia change colour), rhodalite, tourmaline, ruby, tsavorite, marble, sapphire, and emerald. Iron ore is mined in large quantities in Kishushe ranch, which is a mining site with a processing plant. The quality of the iron ore is very good and most of the product is exported after it has been processed. Other areas where iron ore is mined include Kasigau ranch and Mbololo.

Marble is found is small quantities at Kishushe Ranch but mined in larger quantities in Mariwenyi and Mwatate. Garnet (green, red and Chawia change colour), sapphire, and rhodalite are found in Kasigau ranch, Chawia, Mkuki, Alia, Mwatate. Tsavorite and Chawia change-colour garnet, which changes colour from red to blue, are only found in this part of Eastern Africa. They are

⁸ Ibid.

⁴ County Government of Taita Taveta, "Taita Taveta County Integrated Development Plan" available at:http:// taitataveta.go.ke/sites/default/files/Taita%20Taveta%20CIDP%20as%20at%207th%20August%202014. pdf (Accessed on 10/08/2017)

⁵ Kenya National Bureau of Statistics & Society For International Development, "Exploring Kenya's Inequalities: Pulling Apart or Pooling Together" available athttp://inequalities.sidint.net/kenya/wp-content/ uploads/sites/3/2013/10/SID%20Abridged%20Small%20Version%20Final%20Download%20Report.pdf (Accessed on 07/08/2017)

⁶ Ibid.

⁷ Ibid.

of good quality and mined in large quantities in Mkuki, Kamtonga, Chawia, Chungaunga and Kasigau. In most areas where the green tsavorite is mined, graphite is also mined. The indicator mineral for tsavorite is graphite and foolish gold.



Figure 8: Location of Taita Taveta County

Ruby, tourmaline (yellow and green) and green garnet are mined in Lualenyi ranch in Alia area in small quantities. The quality of the stones is good but the gemstones are sold rough with no

⁹ Maphill, "Map of Taita Taveta" available at: https://www.google.com/search?q=Taita+Taveta+geographica l+map&client (Accessed 10/08/2017)

value addition and thus sold at a cheaper price. Tourmaline is the mineral indicator for ruby, so in places where tourmaline is found, rubies are also found. Tourmaline is mostly mined in Alia and Mwatate while ruby is mined in large quantities in Mangare, Kasigau and Mwakitau though the best quality is found at Tsavo East national park. Manganese, copper and quartz are mined in small quantities but they are of good quality. There is however mineral prospecting work going on for manganese and copper. Table 4 below shows minerals and their location in Taita Taveta County.

Mineral	Location	
Industrial minerals		
Iron Ore	Kishushe ranch, Kasigau ranch, Mbololo	
Manganese	Mariwenyi, Kasigau ranch	
Copper	Kasigau ranch	
Quartz	Kishushe ranch, Mngama, Mwatate	
Gemstones		
Garnet (green, red, chawia change colour), Sapphire, Rhodalite	Kasigau ranch, Chawia, Mkuki, Alia, Mwatate	
Marble	Mariwenyi, Kishushe ranch, Mwatate	
Graphite	Mkuki, Chungaunga, Kamtonga, Tsavo East	
Tourmaline (yellow and green)	Alia, Chawia, Chungaunga, Mwatate	
Ruby	Mkuki, Mangare, Tsavo East, Chungaunga, Alia, Kamtonga, Mwakitau, Kasigau, Kishushe ranch	
Tsavorite (green)	Tsavo East and West, Chawia, Chungaunga	

Table 4: Minerals in Taita Taveta County

Source: Research findings

Taita Taveta County does not have an elaborate mining policy. However, there have been administrative initiatives that could later inform policy formulation and implementation. The Taita Taveta County Integrated Development Plan 2013-2017¹⁰ identifies the minerals found in the county and the mining companies operating in the area. It indicates that a cadastral survey is ongoing for mineral mapping in the area to get accurate data on the types of mineral available, their quantities and exact locations. On benefit sharing, the county integrated development plan indicates that sharing of royalties should be on a win-win scale for the national government,

¹⁰ County Government of Taita Taveta, "Taita Taveta County Integrated Development Plan" available at:http:// taitataveta.go.ke/sites/default/files/Taita%20Taveta%20CIDP%20as%20at%207th%20August%202014. pdf (Accessed on 10/08/2017)

county government and the community. This will promote sustainable exploitation of mineral wealth to ensure it contributes to development of the county and poverty alleviation. The county annual development plan 2016-2017 sets out two mining sector strategic priorities as illustrated in Table 5 below.

Sub sector	Priorities	Strategies
Mines and minerals	Audit of all zones of economic mineral potential, survey for quality, survey for quality and quantification, issues consents for mining and regulate all processes.	Source for partnerships to explore and zoning of potential parcels and leasing for exploita- tion. Make county laws to prevent continued exploitation by major investors.
Gemstone dealership, processing and value addition	Streamline mode buy-sell activities, create zones for value addition like cut- ting, heating, acid-etching, etc.	Create a zone/ market to be identified with dealership, gem- ology and other similar activities.

Table 5: Taita Taveta County mining strategic priorities

Source: Taita Taveta County Annual Development Plan¹¹

There are a number of mining companies involved in prospecting, mining and production of minerals in the county. Table 6 below shows the companies involved with extractive operations in Taita Taveta County, their countries of origin and mineral(s) of interest.

Table 6: Extractive industry companies in Taita Taveta County

Mining Company	Country of Origin	Minerals
Bridges Mining and Explorations Co.	Scotland	Garnets, Tsavorite
Classic Mines	Kenya	Tsavorite (Garnet), Tourmaline
Davis Mining Co.	Kenya	Tourmaline (Garnet), Ruby
Equator Mining Co.	Kenya	Ruby
Nanak Ltd	Kenya	Limestone, Graphite, Iron ore
Rockland Kenya Ltd	Kenya	Ruby, Sapphire
Wanjala Mining Co.	Kenya	Iron Ore

Source: Research findings

¹¹ County Government of Taita Taveta " County Annual Development Plan; 2016-2017" available at: http://taitataveta.go.ke/sites/default/files/CADP%202015.pdf (Accessed on 11/08/2017)

The emergence of extractive companies has led to increased land conflicts in Taita Taveta County. The situation has been exacerbated by poor land adjudication and lack of title deeds.¹² There are ongoing boundary conflicts between the Davis Mining Company and the locals in Chungaunga and land conflicts between Wanjala Mining Company and the residents of Kishushe ranch.¹³ The county has witnessed conflicts between investors and the community since the emergence of the extractive industry in the area. Campbell Bridges, the managing director of Bridges Mining Company and the first geologist to set up mining operations in the area, was brutally murdered as a result of land disputes.¹⁴ The largest iron ore mining company in the county, Wanjala Mining Company, halted its operations since 2013 because of a land dispute. The company has been in a four-year dispute with a rival faction of Kishushe ranch, Kishushe Cooperative Society.¹⁵ Davis Mining Company has also an ongoing court dispute on land ownership.

The gemstone mining in the county is done by small scale and artisanal miners who operated outside the legal framework before the passing into law of Mining Act 2016. The miners have limited technical expertise and financial muscle hence they operate in poor state with no infrastructure and use dangerous explosives in their operations which are detrimental to their health.¹⁶ The county has encouraged members of the community interested in mining to form themselves into groups and register as community-based organizations (CBOs) with the county government. The office of the geologist has allocated the groups mining locations that are free. The President donated two excavators and two compressors through the National Youth Service (NYS) and the machines are allocated to small scale and artisanal miners on a rotational basis.¹⁷ Additionally, a gemstone centre has been built in Voi. It is a value addition, marketing and training centre for miners and dealers in the gemstone mining industry in the county. Although the operations are yet to start, the community believes that they will get information and skills on cutting of stones, making of jewelry and marketing of their products once the centre is operational.

¹² United Nations Development Program Kenya, "Extractive Industries for Sustainable Development in Kenya: Assessment Report" available at: www.ke.undp.org (Accessed on 09/08/2017)

¹³ United Nations Development Program Kenya, "Extractive Industries for Sustainable Development in Kenya: Assessment Report" available at: www.ke.undp.org (Accessed on 09/08/2017)

¹⁴ The Guardian, "Gem expert Campbell Bridges killed in mob attack in Kenya" available at: https://www. theguardian.com/world/2009/aug/13/geologist-campbell-bridges-stabbed-kenya (Accessed on 10/07/2017)

¹⁵ Nation Media Group, "Swazuri directs company to resume mining on disputed land in Taita" available at: http://www.nation.co.ke/counties/taita-taveta/Wanjala-Mining-Company-Taita/1183326-3520670-4xpgaqz/index.html (Accessed on 11/07/2017)

¹⁶ Heinrich Boll Foundation, Nairobi, "The wealth in the ground that is elusive to local communities: Mining in Taita Taveta County Prospects and Problems" available at:https://ke.boell.org/sites/default/files/mining_in_ taita_taveta_county_-_prospects_and_problems.pdf (Accessed on 11/07/2017)

¹⁷ Raphael Mwadime, "Mining cabinet secretary Dan Kazungu flags off mining equipment at Voi on Wednesday." available at:http://www.the-star.co.ke/news/2017/03/16/new-mining-equipment-for-taita-taveta_c1525605 (Accessed on 11/07/2017)

Research findings

Perceptions on existing extractive industry policy(ies)

A majority (42%) of the respondents were of the view that there was a policy on extractive industry in the county whereas a total of 39% of the respondents acknowledged that the county had no mining policy whereas 19% were ignorant of whether there was a policy or not. This inconsistency established a knowledge gap on the county laws and policies.

The confusion around the existence or non-existence of the mining policy is an indication that the term 'policy' relayed different connotations to different people. There are those who simply understood 'policy' as a county plan to protect the mines and ensure benefits to the people; others understood policy to mean the right of the county to have its 20% constitutional share of the profit from the mines; while still others considered policy to refer to rules and regulations on mining. This variation in interpretation of the term 'policy' is a clear indication of the knowledge gap among county residents and the need to incorporate them into the policy-making processes. Figure 9 below shows the perceptions on the existence of the extractive industry policy in Taita Taveta County.



Figure 9: Perceptions on existence of extractive industry policy in Taita Taveta County

Source: Research findings

Taita Taveta County has no extractive industry policy. However, there have been administrative initiatives that could later inform policy formulation and implementation. The findings indicate that in 2016 the county government engaged consultants to draft a County Mining Bill which was later abandoned. The Bill was challenged on the premise that mining is not a devolved function and as such all mining activities are regulated by the Mining Act 2016 and the Mineral and Mining Policy of 2016.

Community participation in decision making

A total of 61% of the respondents agreed that the community should participate in decision making regarding extractive industry operations in Taita Taveta County. Respondents maintained that the community needs to be engaged by other stakeholders since they are directly affected by mining activity. The research findings established that the community should take the lead in deciding the essential community services and development initiatives to be contained within community development agreements (CDAs).

Impact of extractive industry in Taita Taveta County

The exploitation of mineral resources is prone to socio-cultural, economic and environmental impacts whose net effect has had an impact on the livelihood of local communities, environment, and conflict dynamics in Taita Taveta County as discussed below.

Impact of extractive industry on livelihoods

Presence of the extractive industry in Taita Taveta County has had an impact on livelihoods. This impact was measured by asking respondents to indicate the extent of effect of extractive industries on people's livelihood particularly in relation to income, employment, health, and education as illustrated in Figure 10 below.



Figure 10: Impact of extractive industry on livelihoods in Taita Taveta County

Source: Research findings

Income

A total of 47% of the respondents indicated that the exploration of mineral deposits in Taita Taveta County moderately affected their income and 47% were of the opinion that the presence of extractive industry moderately affected employment opportunities. The respondents indicated that employment opportunities in the mines are availed to the local communities who are normally engaged as casual workers. The youth under the NYS program earn Ksh. 450 per day and lunch is provided for them. Research findings (28%) indicated that Davis Mining Company provides medical insurance and housing for its employees. Wanjala Mining Company and Equator Mining Company are the best employers in terms of employee remuneration. However, the findings indicate the need for communities to embrace alternative sources of livelihood instead of relying solely on being employed at the mines.

In cases where community-based organizations (CBOs) have a mine location, there is an agreement on the percentage to be paid to the CBO and the income that the miner retains after production. For instance, in Chawia Minerals Association, a CBO that owns Mkuki mines, 30% commission is paid to the person who mines while 70% of the production income is retained by the CBO. For sustainability and financial security of the local community, Wanjala Mining Company has been depositing Ksh. 70 into the Kishushe trust fund account for every tone of iron ore it sells. Over Ksh. 27 million in deposits have been made since the company started operations.

Provision of health facilities

According to the findings, 44% of the respondents pointed out that the presence of extractive industries has minimally affected provision of health facilities in the county. Other respondents (33%) from Kishushe indicated that the community had benefitted as a result of mining companies in the region. They highlighted that Wanjala Mining Company had built a dispensary and a modern maternity wing with state-of-the-art equipment at Kishushe that serve the residents from where a majority of its employees are drawn.

Education

Most respondents (36%) indicated that the education sector had been moderately impacted by the presence of extractive companies. Findings show that Davis Mining Company has built classes at Mugama primary school whereas Wanjala Mining Company has built classes and equipped a playground at Mbela secondary school.

On education scholarships, respondents affirmed that Wanjala Mining Company had awarded scholarships to deserving bright and needy children in Kishushe area from class 8 through to

university. The company had also donated part of its land to some university students doing research in farming in arid areas who have planted grass to feed cattle, watermelons, eggplant and pawpaw.

Infrastructure development

The presence of extractive industries in Taita Taveta County has impacted infrastructural development in the region. Respondents observed that Davis Mining Company had drilled two water wells and installed a pumping system providing the local community in Chungaunga with water. However, the community vandalized pipes and water equipment due to an ongoing land conflict with a pending case in court. Respondents ascertained that Wanjala Mining Company had drilled and equipped three boreholes making them the sole suppliers of water to Kishushe residents. Additionally, the company had renovated the murram roads in the Kishushe area.

Provision of security

Mining activity in Taita Taveta has improved security for the residents living near the mining sites. Respondents indicated that the mining companies provide security for the mining areas to avoid mineral theft and vandalizing of their equipment. This directly contributes to the security of the areas neighboring mining zones.

Overall expectations on Corporate Social Responsibilities (CSR) in Taita Taveta County

The general expectation by the respondents was that companies operating in the county need to do more for the community as demonstrated in Figure 11 below.



Figure 11: Overall expectations on Corporate Social Responsibility in Taita Taveta County

A majority (47%) of the respondents identified construction of schools and healthcare facilities as the main CSR activity expected from mining companies while 15% suggested provision of education scholarships. Figure 11 above shows that a total of 18% of the respondents considered provision of clean water while 11% mentioned construction of roads. Other respondents (5%) proposed: training community members on marketing strategies, provision of ambulance services, and construction of a tertiary institution to train the locals in mining.

The above expectations indicate that the emergence of extractive industries has raised expectations for basic social services and that there is a misunderstanding that mining companies should not take the responsibility of providing services normally provided by government. According to these findings, there is need to raise awareness on the importance of corporate social responsibility and its complementary role to provision of services that should normally be provided either by the county or national government.

Impact of extractive industry on environment

The findings indicate that the operations of the extractive industry adversely affect the environment as depicted by 56% of the respondents. The effects were attributed to the inability of artisanal miners to undertake environmental impact assessment. However, 28% of the respondents living far from the mining sites held the view that mining activities posed no risk to the environment since mining takes place away from human habitation especially in Chungaunga, Alia and Tsavo. From the findings, 16% of the respondents did not know whether the operations of extractive industries in the county affected the environment.

Impact of extractive industry on conflict

As indicated in Figure 12, a majority of the respondents (44%) indicated that land conflicts were highly frequent in Taita Taveta County as a result of mining activities. This was attributed to most residents lacking title deeds for the land they reside on. Poor land adjudication has made it easy for people to lose their land to fraudulent land brokers. Many illegal title deeds have been acquired making previous land owners squatters.





Source: Research findings

There have been family disputes related to land where the head of the household grants consent to an investor to mine or do mines prospecting without consulting or informing the other family members. There are also cases of conflict between land owners and the investors. The land owners give consent for investors to explore on their lands but once the investors begin to produce minerals, the land owners claim back their land. This was reported in Chungaunga and parts of Kasigau area. During an interview, the managing director of Davis Mining Company stated, "In this land, battles have been fought, enemies of the worst kind have been made, lives have been lost and many upright men have become thieves and potential murderers because of this land and it's wealth." Davis Mining Company has an ongoing conflict with Chungaunga residents who want to take over their lands after discovering that there were significant amounts of tourmaline and ruby in the mining site. The Managing Director of Davis Mining Company attributed the conflict to political incitement as he noted that some politicians were inciting the residents against mining companies owned by foreigners for their personal interests.

Figure 12 above indicates that a total of 32% of the respondents pointed out that the presence of mining companies had led to political conflicts in Taita Taveta County. According to the

findings, the dispute between Kishushe ranch and Wanjala Mining Company is the longest politically-instigated one. The dispute started as a political incitement where some politicians incited the local community against mining in the area carried out by "outsiders" that was not beneficial to the residents. The conflict is now a case in court and the operations of Wanjala Mining Company have been halted from 2013.

Ethnic conflicts caused by operations of extractive industry are rare in Taita Taveta as demonstrated by 43% of the respondents. However, a total of 33% of respondents were of the view that the ethnic conflict experienced in the county was a result of political incitement along tribal lines especially during election campaigns. Respondents observed that employees of the mining companies and most artisanal miners are drawn from the Kamba, Kikuyu and Meru communities who had registered as voters in Taita Taveta. This has brought animosity between some residents from the Taita community and the "outsiders". Ethnic conflict has been rampant in Mkuki and Kasigau areas where most miners are from outside the Taita community.

Although not directly linked to extractive sector operations, human-wildlife conflict has been witnessed in the county. Respondents affirmed that a cheetah had killed a man there in May, 2017 at Mkuki area. The chairlady of Alia CBO explained that elephants had destroyed their crops and shattered their houses.

Conflict intervention mechanism

There are various actors involved in addressing conflicts that arise as a result of extractive industry operations in Taita Taveta County. The contribution of the actors is shown in Figure 13 on the next page. A total of 31% of the respondents commended the county government intervention on conflict resolution. The respondents affirmed that the ward administrators assist in resolving boundary conflicts. According to the research findings, the ministry of mining and the national land commission were involved in solving the dispute between Kishushe ranch and Wanjala Mining Company before the case was filed in court. Respondents commended the geologist, a national government employee seconded to the county, for addressing disputes in the gemstones belt.



Figure 13: Contribution of various actors in addressing conflicts in Taita Taveta County's extractive industry

Source: Research findings

Figure 13 above shows that 40% of the respondents held the view that chiefs, assistant chiefs and village elders were most effective in resolving mining related conflicts at the community level. The findings indicated that the chief is involved in family land disputes and disputes between miners in the mining zones.

According to the findings, 35% of the respondents upheld that nongovernmental organizations (NGOs), community-based organization (CBOs) and faith-based organizations (FBOs) had played a role in conflict resolution in extractive industry. Respondents affirmed that most community-based organizations involved in mining settle disputes between the miners at the mining zones. The findings illustrated that NGOs such as *Sauti ya Wanawake* (voice of women) play a pivotal role in following up human rights violation complaints especially in cases where women and children are abused.

Assessment for Community Chartered Mediators

A total of 15% of the respondents ascertained that there were members of the community trained in 2016. This includes a group of community leaders drawn from the Coast Chapter Chamber of Mines, *Sauti ya Wanawake*, elders and chiefs in 2016 trained by the Kenya National

Commission on Human Rights (KNCHR). However, the community recommended that more community leaders, chiefs and the officials of community-based organizations and members of different youth groups be trained on conflict management mechanisms and mediation to help the community in case of disputes and conflicts.

Areas of training to enhance community participation in the extractive industry

All respondents were of the view that the community needs to be empowered in order to improve its participation in the extractive industry, as illustrated in Figure 14 below. A majority (33%) of the respondents held the view that conflict management and resolution were key areas of training for the chartered mediators while 25% mentioned awareness creation on community participation as a critical area. Advocacy on environmental protection was proposed by 18% of the respondents whereas 21% settled on awareness creation on benefit sharing. A total of 3% of the respondents suggested other areas of training to include: training on use of explosives, land reclamation and rehabilitation, and marketing strategies.



Figure 14: Key areas of training for chartered mediators in Taita Taveta County

Source: Research findings

Policy recommendations

The national government should:

- Provide funding to the youths and groups involved in mining. The youth fund and the women enterprise fund do not fund mining business, yet it is a very expensive venture. A state cooperative in mining would be a game changer in the industry.
- ii) Decentralize services to the sub-county level for efficient administrative and technical services to small scale and artisanal miners. The mining cadastre portal by the ministry of mining is a great step in license application and payments. However, small scale and artisanal miners need to be trained on how to effectively make use of the portal.
- Establish a mining dispute resolution tribunal or a special court to address mining disputes. The judiciary should set up a county mining tribunal for handling mining disputes.
- iv) Subsidize the prices of equipment such as excavators and compressors that are used in mining to make it affordable for small scale and artisanal miners.
- v) Collaborate with the county government in zoning out of mining areas.

The county government should:

- Carry out a blanket environmental impact assessment of the area to assist small scale and artisanal miners in application of mining licenses and permits. This would help the miners in application of mining licenses and permits since they have limited capacity to conduct the environmental impact assessment.
- ii) Provide the small scale miners and artisanal miners with equipment and train them on best mining practices, value addition and marketing of minerals.
- iii) Assist in reclaiming and rehabilitation of land. This will ensure that the land can be put into productive use since the artisanal and small scale miners have limited capacity to restore abandoned land.
- Take advantage of the vibrant tourism industry at Tsavo National Parks to market its minerals especially the tsavorite and the Chawia change-colour garnet, found only in Taita Taveta County in the East Africa region.
- v) Ensure that the gemstone centre has a dispute resolution unit.

The extractive companies should:

i) Work in synergy with the national and county governments and embrace community participation. This will ensure that they gain the political will and community trust and cooperation.

CSOs, NGOs should:

- Play an advocacy role in the county. This will empower the community to engage the mining companies with community development agreements on how best they can develop their communities while at the same time demanding the services that both the national and county government ought to offer such as provision of clean water and construction of roads.
- ii) Demystify myths and beliefs associated with gemstones mining. This will prevent the unnecessary loss of life and other human rights violations as a result of beliefs that a person must sacrifice someone in order to get mineral deposits on their land.

Academic institutions should:

- Offer vocational training on mining skills, conflict management and resolution, value addition of gemstones and marketing strategies. Academic institutions can learn best practices from tertiary institutions in Tanzania that offer diploma and certificate programs in mining.
- ii) Collaborate with the county government to create a cottage industry around lower value gemstones such as tourmaline.

The community needs to:

- i) Embrace alternative sources of livelihood instead of relying on being employed at the mines.
- ii) Have a clear understanding of what the county government's role is in service delivery vis-à-vis the expectations of what the mining companies in the area should do to develop the community.
- Be educated on land rights and the importance of cooperating with investors for the benefit of the community and how to negotiate the community development agreements.

The following recommendations on measures to be taken to ensure environmental safety were proposed:

- (a) The National Environmental and Management Authority (NEMA) should ask investors to submit an environmental impact assessment and mitigation arrangement report when they apply for the licenses.
- (b) The national government should carry out blanket environmental impact assessments (EIA) in the mining areas since artisanal miners lack capacity to undertake an EIA. This will ensure that artisanal and small scale miners are well informed on environment degradation.
- (c) The ministry of mining together with NEMA need to strengthen the capacity of inspectors of mines, geologists and inspectors of explosives and deploy them to the mining sites in Kenya to ensure fencing off or closing of mining pits. Rehabilitation of dis-used mines and quarries should be made mandatory.
- (d) County government should assist in reclaiming and rehabilitation of land. This will ensure that the land can be put into productive use since the artisanal and small-scale miners have limited capacity to restore abandoned land.
- (e) Miners should ensure safe use of explosives because they are corrosive and pose a health hazard in the mines. Licensed blasters should be engaged to use the explosives to avoid accidents in the mining fields.
- (f) Planting of trees should be encouraged because deforestation is a major issue, as many trees are cut during the mining activities.

Conclusion

This research was carried out to assess the existing capacity in Taita Taveta County, particularly in addressing challenges and opportunities of the extractive industries sector and identification of gaps in knowledge, policy, advocacy, and research. The research applied descriptive research design, but more specifically baseline survey, in order to highlight the key elements of knowledge and policy gaps in the extractive industry. The study used both qualitative and quantitative research methods. A documentary review was conducted on the key issues of concern in the extractive industry.

The presence of extractive industry operations in Taita Taveta county has benefitted the local community through employment opportunities, well-equipped healthcare facilities, the construction of schools and boreholes, and scholarship awards. The research identified the following knowledge, advocacy and policy gaps in the extractive industry in Taita Taveta

county: limited knowledge on policies governing the extractive industry in the county; minimal community participation in extractive sector operations; ignorance amongst artisanal miners regarding environmental protection; limited number of trained mediators who can intervene between the community, government and the multinational corporations (MNCs); and widespread myths on extractive industries in the county.

There is no clear conflict resolution mechanism on the issues arising from the extractive industry in the county and the community does not have clear reporting channels of the conflict. There is therefore, the need to train community mediators to handle conflict resolution and handle disputes arising from the presence of the extractive industry in the county.

Existence of mining companies has been linked to increased environmental degradation and land disputes, political, ethnic and family disputes. However, there are few trained stakeholders for addressing these conflicts. Specialized trainings required to fill the gaps include: awareness creation on community participation, conflict management and resolution, benefit-sharing of the proceeds of the production by the extractive companies, and advocacy on environmental protection.

REFERENCES

- County Government of Taita Taveta, "County Annual Development Plan 2016-2017." Available at: http://taitataveta.go.ke/sites/default/files/CADP%202015.pdf
- County Government of Taita Taveta, "Taita Taveta County Integrated Development Plan." Available at: http://taitataveta.go.ke/sites/default/files/Taita%20Taveta%20CIDP%20as%20at%20 7th%20August%202014.pdf
- Heinrich Boll Foundation, Nairobi, "The Wealth in the ground that is elusive to local communities: Mining in Taita Taveta County prospects and problems." Available at: https://ke.boell.org/ sites/default/files/mining_in_taita_taveta_county_-_prospects_and_problems.pdf
- Kenya National Bureau of Statistics & Society For International Development, "Exploring Kenya's inequalities: Pulling apart or pooling together." Available at: http://inequalities.sidint.net/ kenya/wpcontent/uploads/sites/3/2013/10/SID%20Abridged%20Small%20Version%20 Final%20Download%20Report.pdf
- Kenya National Bureau of Statistics, "Kenya Population and Housing Census 2009." Available at: https://www.knbs.or.ke/?option=com_phocadownload&view=category&id=109%3Apopulati on-and-housing-census-2009&Itemid=599%2F
- Konkwo, Dede E.J. "Harnessing tradotronic media potentials for conflict resolution in Nigeria's Niger Delta." Available at: https://www.researchgate.net/profile/Emmanuel_ Amoo2/publication/256216509_Home-based_female_sex_workers_and_exposure_ to_HIV_in_Suburb_of_cities_in_Nigeria_IJSSHR_-_Vol2_No4_4th_edition_2011/ links/0046352206da8705eb000000/Home-based-female-sex-workers-and-exposure-to-HIVin-Suburb-of-cities-in-Nigeria-IJSSHR-Vol2-No4-4th-edition-2011.pdf#page=52
- Maphill, "Map of Taita Taveta" available at: https://www.google.com/search?q=Taita+Taveta+ge ographical+map&client
- Nafziger Wayne, E. & Auvinen Juha, *Economic development, inequality, war, and state violence*, 2001. Available at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.667.7500&rep=rep1&type=p df
- Nation Media Group, "Swazuri directs company to resume mining on disputed land in Taita." Available at: http://www.nation.co.ke/counties/taita-taveta/Wanjala-Mining-Company-Taita/1183326-3520670-4xpgaqz/index.html
- Pettigrew, Thomas F. "Relative Deprivation and Intergroup Prejudice." Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1540-4560.2008.00567.x/pdf
- Raphael Mwadime, "Mining cabinet secretary Dan Kazungu flags off mining equipment at Voi on Wednesday." Available at http://www.the-star.co.ke/news/2017/03/16/new-miningequipment-for-taita-taveta_c1525605
- The Guardian, "Gem expert Campbell Bridges killed in mob attack in Kenya." Available at https://www.theguardian.com/world/2009/aug/13/geologist-campbell-bridges-stabbed-kenya
- United Nations Development Program Kenya, "Extractive Industries for Sustainable Development in Kenya: Assessment Report." Available at: www.ke.undp.org

III. KITUI COUNTY BASELINE SURVEY REPORT

Introduction

Kitui County is located in a semi-arid region of Eastern Kenya divided into 16 administrative sub-counties.¹ The county is the sixth largest in Kenya, covering an area of 30,496.5 km² with Tsavo National Parks occupying 6,369 km² of it.² According to the Kenya National Bureau of Statistics in 2014, Kitui County had an estimated population of 1,075,866.³ The county depends on agro-pastoralism⁴ and peasant farming as the main economic activity. Other activities include fish farming and micro trading. The central parts of the county are fairly fertile while some parts face frequent drought, water shortage and threatened peasant farming due to climate change and rampant sand harvesting. Kitui County records low literacy levels.⁵ This study was conducted in Kitui County between May and June 2017.

Contextual analysis

Socio-Political Situation

With estimated population of 1,075,866, 25% of Katui county's residents have received no education at all. Kitui has a dependency ratio of 1.1, with 60% of its individuals living below the poverty line, a poverty gap of 19% stated as a percentage of poverty line, while the severity of poverty is measured at 6% and also expressed as a percentage of the poverty line.⁶ It has

¹ Kenya National Bureau of Statistics, County Statistical Abstract: Kitui County 2015.

² County Government of Kitui, "County Integrated Development Pan 2013-2017" available at: https://www. slideshare.net/simbagoma/kitui-county-integrated-development-plan-july-20141 (Accessed 02/08/2017)

³ Kenya National Bureau of Statistics, County Statistical Abstract: Kitui County 2015.

⁴ "County Stakeholders Consultative Workshop on the Development of the National Climate Change Response Strategy's Action Plan 21st - 22nd May, 2012" available at: file:///E:/Downloads/NCCRS_County_ Workshops__Embu%20(1).pdf (Accessed 26/07/2017)

⁵ Institute for Human Rights and Business (IHRB), "Human Rights in Kenya's Extractive Sector: Exploring the Terrain" available at: www.ihrb.org/focus-areas/commodities/human-rights-in-kenyas-extractive-sectorexploring-the-terrain (Accessed 02/08/2017)

⁶ Ibid.

employment rates of 21% and with the above contributes to a Gini coefficient of 0.39. ⁷ Added to this, the county has only had 26% of its water sources improved & has only 5% electricity coverage.⁸

In the past, Kitui County has experienced various extractive-sector-related conflicts due to poor or no land compensation for displaced communities, poor resettlement of local residents, limited public participation in mining operations by mining companies, unclear benefit sharing ratio, political intervention and poor land adjudication. Future conflicts in Kitui County are projected to be as a result of land scarcity, land degradation, loss of culture and traditions, and increased water and air pollution from the mines. Some of the initiatives taken or suggested to prevent conflicts in Kitui County include increased community participation, issuance of title deeds, community sensitization on mining activities, improved corporate social responsibility by mining companies and setting up a community investment fund.⁹ The local communities in Mui basin elected liaison committees to represent the community in matters relating to the coal project.

In 2013, the Kenyan government awarded Jung'u's subsidiary Fen Xi Mining Industry Limited (FIMC) a mining concession for blocks C and D of the Mui Basin. In the aftermath of signing the Benefits Sharing Agreement (BSA) between the national government and FIMC, local residents were not satisfied with their benefits leading to development of an addendum to the document. This document that was drafted to safeguard the interests of the Mui basin community¹⁰ but the new document is yet to be signed and adopted and annexed to the BSA as part of the concession agreement. Despite having a concession mining agreement, FIMC has not commenced its mining operations in Mui basin. This has left the residents without an update on the status of coal mining in blocks C and D. With support from Kenya National Commission of Human Rights (KNCHR), local residents have participated in an organised public forum and conducted civic education on the extractive sector¹¹ as they advocate for information on the status of the project. This lack of information has also exposed the existence of little or no coordination between the national government and the Kitui County government.¹²

⁷ Ibid.

⁸ Ibid.

⁹ UNDP, "Extractive industries for sustainable development in Kenya: Final assessment report" available at: https:// info.undp.org/docs/pdc/.../Prodoc%20UNDP_Kenya_Extractive_Industries.pdf (Accessed 26/07/2017)

¹⁰ Diakonia, "Rapid assessment of the extractive industry sector in Kitui County: the case of coal exploration and mining in the Mui basin" available at: https://www.diakonia.se/globalassets/documents/diakonia/where-wework/africa/kenya-2014-rapid-assessment-coal-mining-kitui.pdf (Accessed 27/07/2017)

¹¹ Musembi Nzengu, "Kitui wants details of Mui coal project" available at: http://www.the-star.co.ke/ news/2016/02/15/kitui-wants-details-of-mui-coal-project_c1294645 (Accessed 27/07/2017)

¹² Philip Muasya, "Political intrigues stall coal mining project in Kitui County" available at: https://www. standardmedia.co.ke/business/article/2000227177/political-intrigues-stall-coal-mining-project-in-kituicounty (Accessed 27/07/2017)

The map in Figure 15 below shows the position of Kitui County on the map of Kenya.



Figure 15: Location of Kitui County

Source: Soft Kenya¹³

Mineral Resource Distribution

The mineral resources in Kitui County are coal, limestone, vanadium, pyrite, diatomite, graphite, asbestos, sand, tourmaline, amethyst, copper, wollastonite, epidote, silica, gypsum, magnesite, gold, sillimanite, iron ore, vermiculite, ilmenite and gemstones (garnet, sapphire, ruby and amethyst).¹⁴ Exploration and excavation of some deposits have commenced. Excavation of

¹³ Soft Kenya, "Kitui County overview" available at: https://softkenya.com/kenya/kitui-county/ (Accessed 21/08/2017)

¹⁴ Diakonia, "Rapid Assessment Of The Extractive Industry Sector In Kitui County: The Case Of Coal Exploration And Mining In The Mui Basin" available at: https://www.diakonia.se/globalassets/documents/ diakonia/where-we-work/africa/kenya-2014-rapid-assesment-coal-mining-kitui.pdf (Accessed 27/07/2017) See also County Government of Kitui, "County Integrated Development Plan 2013-2017: Planning for

gemstone has started in Tharaka and Tseikuru, limestone in Mui, Mutomo, Mutito and Kyuso, and gypsum is being mined at Mwingi South. Artisanal miners engage in sand harvesting and gemstone mining.

Coal deposits are found in Mui Basin that spread in four blocks comprising block A, B, C, and D, which run through Zombe, Yoonye, Kathonzweni, Mui, Mathuki, Isekele and Karung'a. The coal deposit in block C and D is estimated at 400 million tonnes valued at Ksh. 3.4 trillion (\$40 billion). These explored coal deposits are ranked to range from lignite to sub-bituminous with calorific values of 16 to 27 mj/kg.¹⁵ Sand harvesting is carried out in major rivers in Kitui such as River Tiva and Thua among others.

Copper deposits are found in Mithikwani while gemstones are found in Endau Malalani. Iron ore is found in Timboni whereas blue and red sapphires are found in Kanondo-Mwingi and Endau Malalani. Limestone deposits are found in Mutomo and Ikutha South of Kitui. These two locations lie in the limestone belt that specifically covers Mathima, Kanziku and Simisi locations. Limestones are also found in Kanziku, Ngaie and Simiti/Mathima while aluminum clay is found in Kathonzweni. Table 7 below shows the minerals and their location in Kitui County.

Minerals	Location
Aluminum clay	Kathonzweni
Amethyst	Kathua - Kitui East
Coal	Mui Basin Blocks A, B, C and D which are Zombe, Mutitu, Mathulini and Kalitini respectively
Copper	Mithikwani
Gemstones	Endau Malalani, Kathua
Iron ore	Timboni
Limestones	Kanziku, Ngaie, Simiti, Mathima, Mutomo and Ikutha
Sand harvesting	All over most Kitui Rivers
Sapphire (blue and red)	Kanondo – Mwingi, Endau – Malalani

Table 7: Minerals in Kitui County

Source: Research findings

Mineral deposits in Kitui County have attracted several extractive companies, namely, Mineral Mining Corporation, Athi River Mining Company, Zhen Hua Company, Fen Xi Industry Mining Company, Track Africa Limited, Bamburi Mining, Erdemann Gypsum Limited, and

Sustainable Socio-Economic Growth And Development" available at: https://cog.go.ke/images/stories/ CIDPs/Kitui.pdf (Accessed 27/07/2017)

¹⁵ County Government of Kitui, "County Integrated Development Plan 2013-2017: Planning for Sustainable Socio-Economic Growth And Development" available at: https://cog.go.ke/images/stories/CIDPs/Kitui.pdf (Accessed 27/07/2017)

Kenya Coal. Artisanal mining is carried out for Amethyst in Kathua – Kitui East near Kaliku. Artisanal miners also carry out small scale extraction of sapphire in Kanondo Mwingi. Table 8 below indicates the companies involved with extractive operations in Kitui County, their countries of origin and the mineral they exploit in the county.

Mining Company	Country Of Origin	Mineral
Athi River Mining	Kenya	Limestone
Bamburi Mining Company	France	Limestone
Erdemann Gypsum Limited	China	Gypsum
Fenxi Industry Mining Company	China	Coal block C and D
Kenya Coal	Kenya	Coal
Mineral Mining Corporation	Colorado U.S.A.	Magnesite
Track Africa Limited	Kenya	Copper
Zhen Hua Company	China	Copper

Table 8: Extractive industry companies in Kitui County

Source: Research findings

The emergence of an extractive sector in Kitui County presents opportunities for Kitui residents and a myriad of challenges. Despite coal being a major source of energy, its exploration, mining, and post-mining will result in the pollution of water and air. Coal exploration and mining have been linked to water contamination that risks adverse health impacts and affects a variety of flora and fauna of the area.¹⁶ Following the environmental pollution, studies have recommended that efficient technologies such as coal desulfurization¹⁷ be used to reduce the amount of pollutants that will be released to the surrounding environment. Environmental degradation is further caused by uncontrolled local artisans.¹⁸ As a result of the environmental impacts of the extractive sector, Kitui's County Environment, Energy and Minerals Investment Development Ministry is advocating for tree planting in the county.

¹⁶ Muthangya Mutemi and Samoei David, "Status of water quality in the coal rich Mui basin on Kitui County." Journal of Earth Sciences Asian Research Publishing Network (ARPN): Kenya Vol. 1, 2(2012).

¹⁷ Kipruto Gilbert, "Potential environmental impact due to mining and use of coal in areas around Mui basin in Kenya" available at: http://geology.uonbi.ac.ke/sites/default/files/cbps/sps/geology/POTENTIAL%20 ENVIRONMENTAL%20IMPACT%20DUE%20TO%20MINING%20AND%20USE%20OF%20COAL%20 IN%20AREAS%20AROUND%20MUI%20BASIN%20IN%20KENYA_0.pdf (Accessed 27/07/2017)

¹⁸ County Government of Kitui, "First County Integrated Development Plan 2013-2017: Planning For Sustainable Socio-Economic Growth And Development" available at: https://cog.go.ke/images/stories/CIDPs/Kitui.pdf (Accessed 27/07/2017)

Research findings

Perception on existing extractive industry policy(ies)

A total of 35% of respondents, as shown in Figure 16 below, were of the view that the county has no county mining policy while 8% of respondents indicated that the county has a policy. Kitui County does not have an extractive industry policy. According to the geologist, seconded to Kitui County government by the National government, the county lacks an extractive policy but has set guidelines that help in regulating the extractive sector. He confirmed that the formulation of the county policy is in the process and is expected to be operational in 2017.



Figure 16: Knowledge on existence of extractive industry policy in Kitui County

There is a low level of knowledge on county policy among Kitui County residents, as indicated by 57% of the respondents who did not know whether the county had an extractive sector policy or not. The confusion around the existence or not of the mining policy is an indication that the term 'policy' relayed different connotations to different people. There are those who simply understood 'policy' as a county plan to exploit the mines and ensure that as many people as possible benefited from the natural resources; others understood policy to mean the right of the artisanal miners to exploit the natural resources; while others considered policy to refer to clear county strategy for managing natural resources. This variation in interpretation of the term 'policy' is a clear indication of the knowledge gap among the county residents and the need to incorporate them in the policy and decision-making processes.

Source: *Research findings*

Community participation in decision making

According to the findings, 94% of the respondents agreed that the local community should participate more in decision making regarding the extractive industry operations in Kitui County. Excluding the local community from participating in the management of land and environment is against their constitutional right under Article 69 of the Constitution of Kenya, 2010. The constitution demands that the government should *"encourage public participation in the management, protection, and conservation of the environment."*¹⁹ It is therefore important that the local community, directly affected by mining activity, be involved in decision making regarding mining operations in the county.

Impact of the extractive industry in Kitui County

The presence of the extractive industries has had an impact on the livelihood of local communities, conflict dynamics, and environment of Kitui County as discussed below.

i. Impact of extractive industry on livelihoods

The impact of the extractive industries on the livelihood of Kitui residents was measured by asking respondents to indicate the extent of positive effect of the extractive industries on income, employment, health, and education. Figure 17 below shows the impact of the extractive industry on livelihoods in Kitui County.





Source: Research findings

¹⁹ Constitution of Kenya, 2010

Income

Figure 17 in the previous page, shows that a majority of the community members (31%) were of the opinion that the extractive industry had a low impact on their income. Despite some members working as artisanal miners in the mines they reported receiving meagre pay that could not sustain their households, due to the inflation rate.

Employment

According to the findings, 40% of respondents indicated that the presence of the extractive companies in Kitui County has a low impact on employment of the locals. Most employees in the extractive sector are drawn from unskilled or manual labour, which is contractual in nature, due to high levels of illiteracy in the county. The findings indicated (10%) that community members from Kavuvoni have benefited from employment opportunities in the sector.

Health services

A total of 37% of the respondents indicated that the extractive companies had a low effect on health services in Kitui County. However, 17% of the respondents highlighted that Erdemann Gypsum Limited had renovated facilities in a hospital in Mwingi.

Education

Majority of the respondents (39%) were of the opinion that the presence of mining companies in Kitui County has had a low impact on education. Athi River Mining Company was mentioned to have bought chairs for some schools in Zombe, Mbungi area. The community observed that mining companies could support education in the county through the provision of scholarships for needy students and provision of clean water in schools.

Existing Corporate Social Responsibility (CSR) activities by extractive industries in Kitui County

The community acknowledged the contribution of the extractive industry through health clinic renovation, employment opportunities to some locals, and buying desks for some school. The findings ascertained that other areas that have been impacted by the presence of the extractive industry in Kitui County include improvement of infrastructure such as construction of roads and sinking of boreholes in Zombe-Mbungi by Kenya Coal, a company prospecting coal in the area. The local community in Ngaie has benefitted through a community-managed trust fund initiated by Athi River Mining.

Despite the existence of some corporate social responsibility (CSR), activities in some parts of Kitui County initiated by companies in the extractive industry, find little cooperation from community members and the local non-government organisations (NGOs) and community-based organisations (CBOs). The (in)actions of these stakeholders are influenced by the view that the CSR programmes are used as a tool to blind the locals on the negative impact of the company operations. The communities underscored the importance of public participation in decision making regarding the CSR activities to be undertaken by the companies. This will ensure that the programmes are aligned with the needs and priorities of the community.

Overall expectations on Corporate Social Responsibilities (CSR) in Kitui County

When asked what else the extractive companies can do for the community, a majority of respondents (36%) considered provision of clean water as a key area of concern while 24% mentioned construction of schools and healthcare facilities. Construction of roads stood out with 11% of the respondents whereas as 9% pointed out the need for education scholarships. Others (20%) suggested more employment opportunities for the local population, installation of electricity and establishment of a community trust fund. The findings are represented in Figure 18 below.





Source: Research findings

Impact of the extractive industry on the environment

A total of 73% of respondents agreed that the operations of extractive companies, particularly those in coal mining, pose an environmental hazard. According to the respondents, coal pollutes

water bodies and air as well as affecting the health of surrounding communities in Mui basin. The respondents attributed water scarcity in the county to rampant sand harvesting. The findings established that uncontrolled harvesting of sand from sand rivers causes water shortage due to the rivers drying up. This has a ripple effect that threatens forest cover and peasant farming as well as causing frequent droughts in the County.

Community members from Zombe and Kalitini expressed their concerns over the open-cast mining method²⁰ used in coal extraction. They pointed out that this method of extraction has detrimental environmental impacts such as soil erosion, loss of biodiversity, formation of sink holes, and contamination of underground water. This technique also leads to land wastage since land that has been dug out can no longer be productive for farming. Respondents recommended that mining companies should carry out successful mine closure and land reclamation activities such as tree planting.

National Environment Management Authority (NEMA), guided by the Environmental Management and Coordination Act (EMCA), is mandated to issue environmental licences to extractive industries after a satisfactory Environmental Social Impact Assessment (ESIA) has been carried out.²¹ NEMA in its operations has authorized the Environmental Impact Assessment (EIA) in Mui and Ngaie, which according to respondents in a focus group discussion (FGD) in block A Zombe-Mui Basin, the community was not consulted in its validation. Of concern was also the laxity espoused by NEMA in addressing pertinent issues such as dumping of asbestos in Ngai Ndethye, a situation that necessitated community protests and media advocacy for their intervention.

Impact of the extractive industry on conflicts

A majority (71%) of the respondents underscored that land conflicts are rampant in the county following the advent of extractive industry in Kitui. The major source of these conflicts is the lack of title deeds that require a time-consuming adjudication process to determine the rights, interests and the owners of the land. A local leader from Yumbu sub-location reported that

²⁰ Open-cast mining, also referred to as open-pit or open-cut mining, is a method of mining that "employs a conventional mining cycle of operations to extract minerals: rock breakage is usually accomplished by drilling and blasting for consolidated materials and by ripping or direct removal by excavators for unconsolidated soil and/or decomposed rock, followed by materials handling and transportation." Like other types of surface mining, open-cast method causes extensive and more visible impacts on the surrounding landscapes than underground mines. Check J. Yamatomi and S. Okubo, "Surface Mining Methods and Equipment" available at: http://www.eolss.net/sample-chapters/c05/e6-37-06-01.pdf (Accessed 23/08/2017)

²¹ Institute for Human Rights and Business (IHRB), "Human Rights in Kenya's Extractive Sector: Exploring the Terrain" available at: https://www.ihrb.org/uploads/reports/IHRB%2C_Human_Rights_in_Kenyas_ Extractive_Sector_-Exploring_the_Terrain%2C_Dec_2016.pdf (Accessed 27/07/2017)
some residents of Yenziu (in block D of Mui basin) were issued fake title deeds. Other sources of land conflicts include internal and external prospectors who purchase land from Kitui residents at relatively cheap prices and sell at a later date, accruing profits and compensation from coal exploration and mining enterprises. This has led to tension between the original land owners who feel cheated by the prospectors. Figure 19 below shows the impact of the extractive industry on conflict in Kitui County.



Figure 19: Impact of the extractive industry on conflict in Kitui County

Source: Research findings

Kitui County has also experienced family land disputes as a result of the presence of the extractive industry. This occurs when there is division among family members on whether ancestral land with mineral deposits can be sold to enterprises in the mining sector. Other family land disputes are caused by misuse of a compensation fund by one member of the family leading to tensions among the family members and between some members of the family and the mining companies.

Figure 19 above depicts that 53% of respondents were of the view that Kitui County experiences minimal ethnic conflicts due to extraction. This was attributed to existence of a dominant Kamba ethnic group in the county. Instances of ethnic tensions between indigenous communities and "foreigners" in the coal mines were pointed out by 7% of the respondents.

The findings illustrated the existence of political tensions as a result of operations of the extractive companies as affirmed by a total of 42% of respondents. The sector has been affected

by political interferences both at the county and national levels. The research findings established that some mining companies in Kitui County have been operating in the county without formal licenses, resulting in conflict with the county government. The companies instead use corrupt means to sustain their operations in the county. This leads to tension between: (i) the mining companies and the county government, (ii) county government and the national government, and (iii) county government and local communities since their participation is ignored.

Conflict resolution mechanisms

Community members highlighted that the county government, rated at an average of 44% as shown in Figure 20 below, addresses the extractive-industry-related conflict through the ward administrators and Members of the County Assembly wards (MCAs) and liaison committee. However, it was established that contracts of the liaison committee had expired, hence the need to appoint a new team. Community members observed that the community interests. The community would like a liaison committee that mobilizes public participation in activities relating to minerals prospecting, mining, and utilization of other natural resources.



Figure 20: Rating of various actors in addressing conflicts in Kitui County's extractive industry

Source: Research findings

According to Figure 20 above, the role of chiefs and elders in addressing issues in the extractive industries was acknowledged by 46% of the respondents while interventions by local NGOs & CBOs was rated at 48%. The successes exhibited by organisations such as CARITAS, Haki

Madini, and Centre for Human Rights and Civic Education were attributed to training on conflict resolution. The chiefs and elders were commended for their availability to assist local members in resolving issues arising as a result of mining. Other stakeholders such as the police and community activists were underscored as helping in conflict resolution in the county.

Assessment for Community Chartered Mediators

As shown in Figure 21 below, majority (91%) of the respondents indicated that there are trained members and groups in the community who can intervene on behalf of the community on issues regarding the extractive industries. Respondents ascertained that these members were drawn from Caritas Kitui, Madini Yetu Wajibu Wetu from a platform of Haki Madini Coalition from blocks A, B, C, and D in Mui Basin, 18 Human Rights defenders from Centre for Human Rights and Civic Education and Community activists.



Figure 21: Key areas of training for chartered mediators in Kitui County

Source: Research findings

A total of 4% respondents were not aware of any trained members of the community who could intervene on behalf of the community in matters regarding the extractive industry operations in the county. Other respondents (5%) recommended religious leaders (priests and pastors), chiefs, and county government officials in the Ministry of Environment, Energy and Mineral resources for training. Mueni self-help group, a women self-empowerment entity, was also recommended for conflict resolution training. Training these women will encourage women to take an active part in addressing conflicts that arise as a result of the extractive sector. Figure 21 above illustrates areas of training to enhance community participation in the extractive industry in Kitui County.

Figure 21 above shows that 20% of respondents ascertained that advocacy on environmental protection was a key area of training for the chartered mediators, while another 19% viewed conflict management and resolution as a critical area. According to 22% of the respondents, awareness creation on community participation is an area to be considered, whereas 11% of the respondents recommended awareness creation on benefits-sharing. The chart above indicates that 23% of all respondents stated that all the areas of training were key for chartered mediators. Other areas of training suggested by 5% of the respondents include training on (i) negotiation skills, (ii) impact of mining, and (iii) group dynamics and co-existence.

Policy recommendations

The national government should:

Develop a comprehensive land compensation plan: Some local residents in Kitui have been forcefully displaced, which has had significant adverse impact on them since they are forced to abandon their ancestral homes and lose their assets and subsistence agricultural production systems. As a result, the community is aggrieved due to lack or poor compensation.

The county governments need to:

Improve access to information on the extractive sector operations to the local communities: The findings established that communities were uncertain about the presence of an extractive sector policy and CSR activities conducted by MNCs. This anecdote raises questions on accessibility of information at the grassroots level. An established transparent and accessible top-down channel of communication will ensure that the local community can access credible information regarding operations in the extractive sector, lessen suspicion and mistrust towards government and companies, and reduce rumors and confusion.

The extractive companies need to:

i. Engage with the local community to identify practices and opportunities that the extractive companies can use to positively impact the livelihood of communities. It is through the Community Development Agreements (CDA) that the CSR activities will help the companies build trust with the local communities as well as contribute to their sustainable future.

ii. Establish open channels of information sharing to the local community, which will address the misperceptions about company operations. This communication can be achieved through grassroots engagements and grievance handling mechanism.

CSOs and NGOs need to:

i. Educate communities about their constitutional rights related to the extractive sector and how to place claims when those rights are violated. This education should be based on sources from which the community gets reliable information. By doing so the community will be empowered to engage in human rights monitoring and accountability.

The local community needs to:

i. Be proactive in participating in decision making regarding the CSR activities carried out by mining companies. This will ensure that their needs are in tandem with company programmes.

NEMA need to:

- i. Improve its accessibility to communities and address community complaints concerning environmental impacts by extractive operations in the county.
- ii. Work towards environmental protection and ensure that the audits of the Environmental Impact Assessment (EIA) report from all areas with minerals are verified through validation of reports.

Conclusion

This study was conducted to assess the gaps in knowledge, policy, and advocacy in handling the challenges and opportunities of the extractive industry sector in Kitui County. The gaps were studied particularly in relation to the role of the local populations, county and national government and civil society organizations. The research applied descriptive research design but more specifically baseline survey, in order to highlight the key elements of knowledge and policy gaps in extractive industry. The study used both qualitative and quantitative research methods. A documentary review was conducted on the key issues of concern in the extractive industry.

The findings indicated knowledge gaps in county policies on extractive industry. Kitui County has no extractive industry policy yet some respondents were of the view that the county had a policy

governing the sector. There is little community participation on issues regarding operations of extractive companies in the county such as environmental impact and CSR activities, yet they are the most affected. It was established that the county exhibited poor land adjudication and exploitation of locals by external and internal land proprietors.

The findings also indicated that the county had experienced more land conflicts since the advent of extractive industries. There are few members of the local community trained and empowered to resolve conflicts that arise as a result of operations of extractive companies in the county. This necessitates training community mediators to address such conflicts. Other key areas for training include advocacy on environmental protection, awareness creation on community participation and benefits-sharing, negotiation skills, impact of mining and group dynamics and co-existence.

REFERENCES

Constitution of Kenya, 2010

- County Government of Kitui, "County integrated development pan 2013-2017." Available at: https://www.slideshare.net/simbagoma/kitui-county-integrated-development-plan-july-20141
- County Government of Kitui, "County Integrated Development Plan 2013-2017: Planning for sustainable socio-economic growth and development." Available at: https://cog.go.ke/ images/stories/CIDPs/Kitui.pdf
- Diakonia, "Rapid assessment of the extractive industry sector in Kitui county: The case of coal exploration and mining in the Mui Basin." Available at: https://www.diakonia.se/globalassets/documents/diakonia/where-we-work/africa/kenya-2014-rapid-assesment-coal-mining-kitui.pdf
- Institute for Human Rights and Business (IHRB), "Human rights in Kenya's extractive sector: Exploring the terrain." Available at: www.ihrb.org/focus-areas/commodities/humanrights-in-kenyas-extractive-sector-exploring-the-terrain
- Kenya National Bureau of Statistics, "County statistical abstract: Kitui County 2015." Available at: https://www.knbs.or.ke/county-statistical-abstracts/
- Kipruto, Gilbert, "Potential environmental impact due to mining and use of coal in areas around Mui basin in Kenya." Available at: http://geology.uonbi.ac.ke/d .pdf
- Konkwo, Dede E.J. "Harnessing tradotronic media potentials for conflict resolution in Nigeria's Niger Delta." Available at: https://www.researchgate.net/profile/Emmanuel_ Amoo2/publication/256216509_Home-based_female_sex_workers_and_exposure_ to_HIV_in_Suburb_of_cities_in_Nigeria_IJSSHR_-_Vol2_No4_4th_edition_2011/ links/0046352206da8705eb000000/Home-based-female-sex-workers-and-exposure-to-HIV-in-Suburb-of-cities-in-Nigeria-IJSSHR-Vol2-No4-4th-edition-2011.pdf#page=52
- Nafziger Wayne, E. & Auvinen Juha, *Economic development, inequality, war, and state violence*, 2001. Available at: <u>http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.667.7500&rep=rep1&type=pdf</u>
- Nzengu, Musembi, "Kitui wants details of Mui coal project." Available at: http://www.the-star. co.ke/news/2016/02/15/kitui-wants-details-of-mui-coal-project_c1294645
- Mutemi, Muthangya and Samoei David, "Status of water quality in the coal rich Mui Basin
- on Kitui County." Journal of Earth Sciences Asian Research Publishing Network (ARPN): Kenya Vol. 1, 2(2012).
- Muasya, Philip, "Political intrigues stall coal mining project in Kitui County." Available at: https://www.standardmedia.co.ke/business/article/2000227177/political-intrigues-stall-

coal-mining-project-in-kitui-county

Pettigrew, Thomas F. "Relative Deprivation and Intergroup Prejudice." Available at: <u>http://onlinelibrary.wiley.com/doi/10.1111/j.1540-4560.2008.00567.x/pdf</u>

Soft Kenya, Kitui County overview." Available at: https://softkenya.com/kenya/kitui-county/

- Kenya Government, "County stakeholder's consultative workshop on the development of the national climate change response strategy's action plan 21st- 22nd May, 2012." Available at: <u>file:///E:/Downloads/NCCRS_County_Workshops_Embu%20(1).pdf</u>
- United Nations Development Programmes (UNDP), "Extractive industries for sustainable development in Kenya: Final assessment report." Available at: https://info.undp.org/ docs/pdc/.../Prodoc%20UNDP_Kenya_Extractive_Industries.pdf
- Yamatomi, J. and S. Okubo, "Surface Mining Methods and Equipment." Available at: <u>http://www.eolss.net/sample-chapters/c05/e6-37-06-01.pdf</u>

IV KWALE COUNTY BASELINE SURVEY REPORT

Introduction

Kwale County is located at the South-Eastern corner of Kenya. It borders Mombasa County and the Indian Ocean to the east, Taita Taveta and Kilifi to the north, Taita Taveta County to the northwest, Kilifi County to the northeast, and United Republic of Tanzania to the south. The county covers an area of 8,270.2 km² of which 62 km² is under water.¹ The capital is Kwale town although Ukunda is larger and a known tourist destination.

The main economic activities in Kwale County are mining, cotton farming, fishing and tourism. Despite the huge mineral deposits and the production already taking place, Kwale County is among the poorest counties in Kenya with 71% of its population living below the poverty line.²

This study was conducted in Nguluku and Msambweni regions of Kwale County between May and June 2017.

Contextual analysis

Socio-Political Situation

According to the 2009 Population and Housing census, Kwale County has a population of about 649,931 people projected to increase to 833,527 in 2017 at a growth rate of 3.1%.³ The county is home to the Digo, Kamba, Duruma and the recently declared Kenya's 43rd tribe, the

¹ County Government of Kwale, "County Integrated Development Plan (2013-2017)" available at https://cog. go.ke/images/stories/CIDPs/Kwale.pdf (Accessed 18/08/2017)

² Kenya National Bureau of Statistics & Society For International Development, "Exploring Kenya's Inequalities: Pulling Apart or Pooling Together" available at http://inequalities.sidint.net/kenya/wp-content/ uploads/sites/3/2013/10/SID%20Abridged%20Small%20Version%20Final%20Download%20Report.pdf (Accessed on 01/08/2017)

³ Kenya National Bureau of Statistics, "Kenya Population and Housing Census 2009" available at https://www. knbs.or.ke/?option=com_phocadownload&view=category&id=109%3Apopulation-and-housing-census-2009&Itemid=599%2F (Accessed on 01/08/2017)

Makonde community originally from Mozambique.⁴ The county records high illiteracy levels with only 10% of its population having pursued secondary level education. A total of 39% of the county population have never attended school.⁵ Kwale has a dependency ratio of 1.0, with 71% of its individuals living below the poverty line, a poverty gap of 42% stated as a percentage of poverty poverty line, while the severity of poverty is measured at 29% and also expressed as a percentage of the poverty line.⁶ It has employment rates of 17% and with the above contributes to a Gini coefficient of 0.60. ⁷ Added to this, the county has only had 47% of its water sources improved & has only 11% electricity coverage.⁸

The county is a drought-affected area, it is generally dry, and the residents face food shortages. The National Drought Management Authority (NDMA) has been working with the county government in identifying mitigation measures to be put in place to deal with food insecurity.⁹ The major contributors to environmental degradation in the county include excessive sand harvesting and radioactive emissions from mining of earth elements.¹⁰

Only 22.5% of land owners in the Kwale County have been issued with title deeds. However most land has not been adjudicated, hence a majority of the households, especially in Matuga and Msambweni, are landless.¹¹ The major land issue is related to poor relocation plans and inadequate land compensation for the residents. Due to corrupt practices by land officials, there have been illegal land acquisitions by fraudulent land brokers and subsequent compensation of land owners holding counterfeit title deeds.¹²

⁸ Ibid.

⁴ Tobias Chanji, "President Uhuru declares Makonde the 43rd tribe of Kenya" available at https://www. standardmedia.co.ke/article/2001227966/president-uhuru-declares-makonde-43rd-tribe-of-kenya (Accessed on 01/08/2017)

⁵ Kenya National Bureau of Statistics & Society For International Development, "Exploring Kenya's Inequalities: Pulling Apart or Pooling Together" available at: http://inequalities.sidint.net/kenya/wp-content/ uploads/sites/3/2013/10/SID%20Abridged%20Small%20Version%20Final%20Download%20Report.pdf (Accessed on 01/08/2017)

⁶ Ibid.

⁷ Ibid.

⁹ Paul Wafula, "Drought hunger ravage five Coast counties" available at: https://www.standardmedia.co.ke/ article/2000220246/drought-hunger-ravage-five-coast-counties (Accessed on 02/08/2017)

¹⁰ County Government of Kwale, "County Integrated Development Plan (2013-2017)" available at: https://cog. go.ke/images/stories/CIDPs/Kwale.pdf (Accessed 18/08/2017)

¹¹ County Government of Kwale, "Ministry of Land Environment and Natural Resources; Land and Land Use" available at: http://www.kwalecountygov.com/index.php?option=com_content&view=featured&Itemid=935 (Accessed on 24/07/2017)

¹² Haki Jamii, " Joint meeting between Base Titanium mining project liaison committee and mining host communities on compensation and agreed Resettlement Action Plan" available at: http://www.hakijamii. com/index.php/2017/06/13/joint-meeting-between-base-titanium-mining-project-liaison-committee-andmining-host-communities-on-compensation-and-agreed-resettlement-action-plan/ (Accessed on 25/07/2017)

Kwale County has been grappling with the security, social and political challenge of violent extremism. The county reports extensive radicalization of individuals, families and communities and recruitment to Al-shabaab.¹³ The electoral risk mapping report by the Independent Electoral and Boundaries Commission (IEBC) identified Kwale County among the violent hotspots in Kenya before the 2017 general elections in Kenya.¹⁴ Kwale County and Taita Taveta County have a boundary dispute that has persisted since 1963 in Miasenyi, 15 kilometers from Mackinnon Road Township. The region has mineral reserves.¹⁵

The Environmental Management and Coordination Act requires mining companies to carry out an Environmental Impact Assessment (EIA) in order to assess the proposed project effects on the environment and propose measures to mitigate possible negative effects.¹⁶ Base Titanium Limited, the main mining company in Kwale, has put in place measures to address negative impact on environment which include: waste recycling, wetland restoration and educating the community on environmental conservation.¹⁷ Base Titanium had built 5 modern schools and a health facility in Kwale since the inception of its operations by the year 2015. The company has also employed some community members on a permanent contractual basis in their various departments and runs an agricultural project in efforts to give back to the community.¹⁸

¹³ Halimu Shauri, "Kwale County plan for countering violent extremism: The first of its kind in Kenya by Human Rights Agenda" available at: https://www.researchgate.net/publication/314119072_Kwale_County_Plan_ for_Countering_Violent_Extremism_The_first_of_its_kind_in_Kenya_by_Human_Rights_Agenda (Accessed 23/08/2017)

¹⁴ Bocha Galgalo, "17 Counties Conflict Hotspots" available at: "http://www.nation.co.ke/news/17-countiesconflict-hot-spots/1056-3326106-mhkq45/index.html" (Accessed on 24/07/2017)

¹⁵ Daniel Tsuma Nyassy and Farouk Mwabege, "County chiefs hold new talks on boundary dispute available at: http://mobile.nation.co.ke/counties/County-chiefs-hold-new-talks-on-boundary-dispute/1950480-2527194format-xhtml-6vdku7z/index.html (Accessed 22/08/2017)

See also Daniel Tsuma Nyassy, "School visit revives boundary wrangle" available at: http://www.nation. co.ke/counties/taita-taveta/Taita-Taveta-Kwale-Boundary-Dispute-Mackinnon-Road/1183326-2314526oqxhh4z/index.html (Accessed 22/08/2017)

See also Thiong`o Mathenge "Devolution and minerals behind escalating community conflicts" available at: https://www.standardmedia.co.ke/article/2000140819/devolution-and-minerals-behind-escalating-community-conflicts (Accessed on 25/07/2017)

¹⁶ Human Rights Agenda "Mining and the Environment: An assessment of Mining Companies Compliance with the Environment, Health and Safety Regulations and Standards in Kwale, Kilifi and Taita Taveta Counties in the Coast Region of Kenya" available at: http://www.huria.ngo/images/reports/Mine_Environ_Report_ Draft1.pdf (Accessed on 25/07/2017)

¹⁷ Base Titanium "Environmental programmes" available at: http://basetitanium.com/environment/ environmental-programmes (Accessed on 25/07/2017)

¹⁸ Meshack Jilani " Base Titanium's Kwale Project Turning Around Life for the Poor Community in South Coast" available at: http://barakafm.org/2015/03/19/base-titaniums-kwale-project-turning-around-life-forthe-poor-community-in-south-coast/ (Accessed on 25/07/2017)

Figure 22: Location of Kwale County



Source: County Government of Kwale¹⁹

Mineral Resource Distribution

Kwale County is endowed with viable mineral deposits that comprise titanium, uranium, tourmaline, oil, gas, niobium, zinc, lead, copper, silica sand, barite, coal, calcium, gemstones, limestone, rare earth elements, coral, sandstone, and bricks. Table 9 below shows the minerals found in Kwale County.

¹⁹ County Government of Kwale, "Kwale county background and history" available at: http://www. kwalecountygov.com (Accessed 02/08/2017)

Minerals	Location
Baryte	Lunga-lunga
Bricks	Waa
Calcium	Vanga, Mrima Hills
Coal	MajiyaChumvi;
Coral	Coastline
Gemstone	Kuranze
Limestone	Shimoni, Waa
Oil/Gas	Onshore, Offshore
Rare Earth Elements (Niobium, phosphates)	Mrima hills, Samburu
Sandstones	Mariakani
Silica sand	Msambweni, Waa, Ramisi, Darugube
Titanium (rutile, ilmenite, zircon)	Nguluku, Shimba hills, Mrima, Maumba, Kinondo
Tourmaline	Kuranze
Uranium	Mrima hills
Zinc, Lead and Copper	Mkang'ombe, Mwache, Dumbule, and Dzitenge

Table 9: Minerals in Kwale County

Source: Research findings

Titanium is the key mineral in Kwale and is currently found in Nguluku, Shimba hills, Mrima, Maumba, and Kinondo. Titanium contains rutile, ilmenite and zilicon elements and some of its byproducts include the metal used in making airplanes, spectacle frames, pigments and medications including Panadol, a well-known pain reliever. Oil and gas deposits found in Msambweni and at the coastlines are yet to be explored. Silica sands for the manufacture of glass are being extracted at Msambweni, Waa, Ramisi, and Darugube while gemstones and tourmaline are mined by artisanal miners in Kuranze. Calcium is mined in Vanga and Mrima Hills. Mining of niobium has been stopped due to its high radioactive emissions. Gemstones are mined by artisanal miners in Kuranze.

Kwale County has two main extractive companies that include Coast Calcium Limited and Base Titanium. Base Titanium started its construction work in 2010 and officially started production of titanium in 2013. The company produces 455,000 tonnes of ilmenite; 85,000 tonnes of rutile which form part of the 14% of the world's rutile output and 32,000 tonnes of zircon annually. Other companies in the county are Cortec Mining Kenya, Pacific Wildcat Resources Corps (PAW), Milly Glass Limited, Kenya Breweries Glass Limited, Shreeji Chemicals, Anaida Investments Limited, Coast Calcium Limited, and Eastern Chemicals. The county has several

small-scale and artisanal miners. Community participation in the extractive industry is poor.²⁰ Table 10 below shows the companies involved with extractive operations in Kwale County, their countries of origin and minerals they exploit in the county.

Company	Country of Origin	Mineral	
Coast Calcium Limited	Kenya	Limestone	
Base Titanium	Australia	Titanium	
Shreeji Chemicals	India	Silica sand	
Cortec Mining Kenya	Kenya	Niobium	
Pacific Wildcat Resources Corps (PAW)	Canada	Niobium Rare Earth elements	
Milly Glass Works Limited	Kenya	Silica sand	
Kenya Breweries Glass Limited	Kenya	Silica sand	
Coast Calcium Limited	Kenya	Calcium	
Anaida Investments Limited	Kenya	Silica sand	
Eastern Chemicals Industries Limited	India	Silica sand	

Table 10: Extractive industry companies in Kwale County

Source: Research findings

The county has no extractive industry policy but has a policy brief developed by Kwale County Natural Resource Network (KCNRN), which is an advocacy group focusing on Natural Resource Management in the county.²¹ The policy brief proposes the need for a county policy on the extractive industry. They recommended that, policies need to consider value addition, safety of the miners, define royalty and peg it on the mineral value rather than the company profit value.²² The key issues of concern are land, conflict, environmental protection and benefit-sharing of the proceeds between the two levels of government and the communities.

²⁰ County Government of Kwale, "County Integrated Development Plan (2013-2017)" available at https://cog. go.ke/images/stories/CIDPs/Kwale.pdf (Accessed 18/08/2017)

²¹ Kwale County Natural Resource Network (KCNRN), "Mining in Kwale County, where is the community? KCNRN Policy Brief No. 1 of 2014" available at: https://sautiyawakwale.wordpress.com/2015/02/11/ mining-in-kwale-county-where-is-the-community/ (Accessed on 24/07/2017)

²² See note 4

Research findings

Perception on existing extractive industry policy (ies)

A total of 38% of the respondents were of the view that Kwale County had a policy on the extractive industry. Majority (46%) of the respondents were ignorant of whether the county had a policy or not while 16% were aware that the county had no mining policy. This discrepancy established a knowledge gap on the county laws and policies governing the extractive sector. Figure 23 below shows the perceptions on the existence of the extractive industry policy in Kwale County.



Figure 23: Knowledge on existence of extractive industry policy in Kwale County

Source: Research findings

The confusion around whether or not there is a mining policy is an indication that the term 'policy' relayed different connotations to different people. There are those who simply understood 'policy' as a county plan to protect the mines and ensure benefits to the people; others understood policy to mean the right of the county to have its 20% constitutional share of the profit from the mines; while others considered policy to refer to clear county strategy for managing natural resources. These variations in the interpretation of the term 'policy' are a clear indication of the knowledge gap among the county residents and the need to incorporate them in the policy making processes.

Even though Kwale County does not have an elaborate mining policy, there have been a number of administrative initiatives that could later inform the actual development of a mining policy. These include the development of Kwale County Quarry Bill, which was initiated as a result of numerous casualties and injuries in the quarries. The Bill is still in its formative stages. The county has also developed strategic guidelines on mining as illustrated in the Table 11 below.

Strategic Objectives	Interventions	Indicators
Mining		
Develop a mineral resource map for Kwale County	Produce a resource map indicating details of the mineral types in Kwale County.	Resource map for mineral deposits in the County
	Gazette all the mineral deposit sites identified	Gazette notices for deposit sites
	Make land accessions on vulnerable areas that are identified to be rich in mineral deposits	Land accession documents for vulnerable deposit sites
Formulate and implement mineral resources develop- ment and exploitation policy	Develop policy documents that guide surveying, prospecting, and mining of minerals	Relevant policy documents
Promote and implement mechanisms for sustainable mining activities	Develop guidelines for artisanal mining and community engagement in mining	Relevant guidelines docu- ment
	Establish a mining task force to monitor miners' adherence to poli- cies and guidelines	Operating task force
Ensure rehabilitation/resto- ration of all mining sites as per the Environmental Man- agement Plan in the Environ- mental Impact Assessment	Maintain records of mining activi- ties including the EMP	Updated mining activity records and follow-up plans
	Progressive monitoring of the min- ing and rehabilitation/restoration as per the Environmental Impact As- sessment and Management Plan	

Table 11: Kwale County mining strategic guidelines

Source: County Government of Kwale²³

Community participation in decision making

On community participation, 79% of the respondents agreed that Kwale residents should participate in decision-making processes regarding the extractive industry operations in Kwale County. Respondents maintained that Kwale residents need to be engaged in the extractive sector matters since they are directly affected by mining activities. They should therefore participate in compensation, relocation plans, environmental management plans and benefit sharing

²³ County Government of Kwale, "Mining: On-going activities" available at: http://www.kwalecountygov.com/ index.php?option=com_content&view=featured&Itemid=824 (Accessed 13/08/2017)

discussions. Respondents commended Kwale County Natural Resource Network (KCNRN), which has partnered with local radio stations to share information with the public and educate them on the impacts, challenges and benefits accruing from the extractive industry in the county. The network also engaged the community in public participation and incorporated their views in the development of the Mining Act 2016.

Impact of the extractive industry in Kwale County

The exploitation and extraction of mineral resources is prone to socio-cultural, economic and environmental impacts whose net effect has had an impact on the livelihood of Kwale residents, on conflict dynamics, and on the environment of Kwale County as discussed below.

Impact of the extractive industry on livelihoods

The presence of the extractive industry in Kwale County has had an impact on livelihoods. Figure 24 below shows the impact of the extractive industry on livelihoods in Kwale county. The impact was measured by asking respondents to indicate the extent of positive effect of extractive industries on people's livelihood particularly in relation to income, employment, health and education.



Figure 24: Impact of the extractive industry on livelihoods in Kwale County

Source: Research findings

Income and employment

A total of 52% of the respondents held the view that the exploration and exploitation of mineral deposits in Kwale County had a low impact on their income, while 38% were of the opinion that the presence of the extractive industry moderately affected employment opportunities. However, a majority (44%) of Kwale residents maintained that there had been low-level employment opportunities for communities by the extractive companies. This was attributed to low skill levels of the local community in line with industry needs since most residents are either unskilled or semi-skilled.

The respondents indicated that, Base Titanium had employed local residents but only within lower grades given that the county has a limited number of qualified personnel in line with the industry needs. However, Base Titanium offers internship opportunities to students pursuing engineering courses and runs a technical trade apprenticeship program. The local population has been employed in Maumba farms with an inclusion of women who have been given tenders to cook. Base Titanium runs a Village Savings and Loans Association (VSLA) scheme for volunteer community health workers and an enterprise development for youth and women's groups in the area.

Provision of health facilities

According to 50% of respondents, the presence of the extractive industries has moderately affected the provision of health care in the county. They highlighted that Base Titanium had constructed healthcare facilities in Magaoni and Mrima, and Bwiti and provided a four-wheel drive ambulance to Msambweni Referral Hospital. Base Titanium facilitates training and logistical support for a community health workers program in Magaoni, Kibuyuni and Mivumoni.

Education

Figure 24 above exemplifies that a total of 58% of the respondents indicated that the presence of extractive industries had moderately affected the education sector in Kwale County. Respondents affirmed that Base Titanium had collaborated with the national government in building classrooms and equipping primary and secondary schools in Matuga and Msambweni sub-counties. The company has also built early childhood development (ECD) centers and refurbished the Kenya Medical Training College (KMTC) in Msambweni.

On education scholarships, respondents pointed out that Base Titanium runs a tertiary education scholarship program for bright and deserving students. It also works in partnership with Friends for Life, a nongovernmental organization, and the Al Kahf Foundation, which is a welfare organization run by the council of Imams in Ukunda in selecting students for the scholarships.

Student beneficiaries have been supported to study courses such as law, medicine and business studies both in Kenya and abroad.

Infrastructure development

Mining companies have worked towards improving the road network in the county. In partnership with the county government, Base Titanium has built two 27 km roads in Bwiti and Msambweni. In addition, the company was commended for sinking 13 boreholes to provide water to local communities in Bwiti, Kiruku and Msambweni. However, water deficit is still high, hence members of a focus group discussion in Msambweni expressed their concerns over inadequate water provision by the county government.

Overall expectations on Corporate Social Responsibility (CSR) areas in Kwale County

The general expectation by the respondents was that, companies operating in the county need to do more for the community as demonstrated in Figure 25 below.



Figure 25: Overall expectations on Corporate Social Responsibility (CSR) in Kwale County

Source: Research findings

On social amenities, 30% of the respondents indicated that they would like the companies to construct more schools and healthcare facilities. A total of 24% of the respondents suggested provision of education scholarships while 21% proposed adequate provision of clean water. Figure 25 above indicates that 20% of the respondents held the view that mining companies should construct more roads for the community. Other respondents (5%) proposed environmental conservation projects, awareness creation on extractive industry operations and their impact on the community, building of mosques and churches, and investing in agriculture.

Impact of extractive industry on environment

A majority of (83%) of the respondents held the view that the operations of the extractive industry in the county had a negative effect on the environment. The negative effects experienced by Kwale residents include air pollution by the mining companies, noise pollution, deep excavations that could in the future become wasted lands, as well as pollution of underground water table. Since extractive industries started their operations, there have been environmental and health impacts to the communities and their environs. The local communities complained that, since the extraction processes commenced, their farm yields have reduced and most of those living near mining sites have suffered a number of ailments and conditions including fever, peeling of the skin, cough, impotency and miscarriages.

Following focus group discussions and key informant interviews conducted, a number of steps were proposed to address environmental degradation by the mining companies. These included: establishing a community environmental watch dog that would keep checks and balances on the mining companies; developing advocacy strategies against environmental pollution; engaging with environmental experts who would guide the county government in establishing international standards for inter-generational short-term and long-term environmental protection. Other measures proposed included: tree planting, water purification, proper waste disposal mechanisms, and lobbying the mining companies to follow laws on environmental safety and protection, and reclamation of land after the extractive processes.

Impact of extractive industry on conflict

Kwale County has experienced increased land conflicts with minimal ethnic and political conflicts since the advent of the extractive sector operations as illustrated in Figure 26 below.



Figure 26: Impact of extractive industry on conflict in Kwale County

Source: Research findings

A majority of (71%) of the respondents indicated that land conflicts were highly frequent in Kwale County as a result of mining activities. This was attributed to poor land adjudication process, illegal allocation of land and forceful evictions from ancestral land, and lack of land title deeds. The local community expressed their concerns over lack of compensation and poor relocation plans by mining companies.

Figure 26 above shows that a total of 51% of the respondents ascertained that, the presence of mining companies have adversely affected the political landscape whereas 42% pointed out that ethnic conflicts were rare as a result of the extractive sector. The respondents (25%) however attributed the existence of ethnic conflict to political incitement. In a focus group discussion in Nguluku, respondents held the view that political leaders incite communities against mining companies for their own political interests. Politicians inform the communities that investors take what belongs to the community while other ethnic groups are favoured-employment communities.

Conflict intervention mechanism

There are various actors involved in addressing conflicts that arise as a result of the extractive industry operations in Kwale County. The contribution of the actors is shown in Figure 6 below.

Figure 27: Contribution of various actors in addressing conflicts in Kwale County's extractive industry



Source: Research findings

As illustrated in Figure 27 above, a total of 47% of the respondents held the view that county government interventions were directed towards addressing extractive industry related conflicts through the sub-county commissioner and the mining project liaison committee (MPLC).

Figure 27 above indicates that 49% of the respondents were of the view that chiefs and village elders were involved in addressing family land disputes and disputes between the mining companies and the local communities. Other actors involved are the religious leaders and members of the Nyumba Kumi initiative.

According to 55% of the respondents, community-based organizations play a role in addressing conflicts arising from the extractive sector. Respondents commended Kwale Youth and Governance Consortium (KYGC) and Kwale County Natural Resource Network (KHRN) for their work in environmental protection advocacy, relaying community grievances and concerns to mining companies, and educating the community on the extractive industry.

The mechanisms proposed by the respondents to address conflicts arising from the presence of the extractive industries in the county include: employment of the local community members in mining companies free of ethnic profiling and training community leaders on conflict resolution.

Assessment for Community Chartered Mediators

A majority of 55% of the respondents acknowledged that they were not aware of any trained members or groups in the community to intervene on behalf of the community whereas 11% said that there were groups which have been trained. The trained individuals were drawn from Kwale Youth and Governance Consortium, Kwale Human Rights Network, Kwale County Natural Resources Network, and Haki Jamii. The community recommended that chiefs, village elders, youths, women group leaders, members of Msambweni Human Rights Watch, Msukumo Bora of Bwiti, and Riziki Youth Bunge in LungaLunga be trained as conflict resolution mediators.

Areas of training to enhance community participation in the extractive industry

All respondents agreed that there is need to train Kwale residents in order to improve their participation in the extractive industry. As illustrated in Figure 28 below, a majority of (32%) of the respondents settled on conflict resolution and management whereas 28% of respondents proposed awareness creation on community participation in the extractive industry. A total of 18% of the respondents highlighted advocacy on environmental protection as a critical area of training while 22% suggested awareness creation on benefits-sharing.



Figure 28: Key areas of training for chartered mediators in Kwale County

Source: Research findings

Policy recommendations

The national government should:

- Carry out civic education on the Mining Act 2016 and the Mineral and Mining Policy. This will fill knowledge gaps established in relation to policies in the extractive sector and play a role in solving major issues affecting communities in Kwale as a result of the extractive industry.
- ii. Review benefit-sharing parameters. This will prevent conflicts among Kwale residents since it is unclear how the 10% royalties going to the community from the proceeds are to be divided.

The county government need to:

- i. Ensure community participation in decision making on matters that touch on the extractive industry which have lasting impacts on the community.
- ii. Carry out an Environmental Impact Assessment (EIA) to verify the hazardous health challenges posed by the extractive industry on members of the community. The complaints of cough and miscarriages need to be verified through scientific laboratory tests and mitigation measures put in place. The county government needs to also take an active role in environmental governance in compliance with the legal regulations on environmental impact assessment and reclamation of land after mining.

Extractive companies need to:

- i. Give adequate land compensation for relocated persons. Doing so will foster trust and cooperation from the community. Mining companies need to also allow those affected by relocation to have an independent valuer to value their land and be given a chance to negotiate on the compensation.
- ii. Educate Kwale residents on impacts of mining operations on the community and their livelihoods to minimize conflict in the community.

CSOs and NGOs need to:

i. Conduct more public education on community participation and environmental impact assessment. They can also engage the relevant authorities to put in place mitigation measures, in particular on health impacts on the community from the mining activities in the county.

Academic institutions need to:

i. Offer training on mining best practices, safety measures and environmental conservation to artisanal miners.

The local community needs to:

i. Understand the legal provisions on environmental management and land compensation for the relocated persons.

Conclusion

This research was carried out to assess the existing capacity at the county level in Kwale, in addressing challenges and opportunities of the extractive industries sector and identification gaps in knowledge, policy, advocacy and research in the extractives industry. The research applied descriptive research design, but more specifically baseline survey, in order to highlight the key elements of knowledge and policy gaps in the extractive industry. The study used both qualitative and quantitative research methods.

The study established that there are gaps in knowledge, policy, and advocacy in the extractives industry in Kwale County. The research identified the following knowledge and policy gaps: limited knowledge on existence of county extractive industry policy; ignorance of the impact of mining activities on the environment; limited number of trained mediators who can intervene between the community, government and the multinational corporations (MNCs); poor land adjudication process; and minimal community participation in extractive sector operations and on the corporate social responsibility for their benefit.

Presence of extractive companies in Kwale County has had an impact on livelihoods of Kwale residents through employment opportunities, provision of education scholarships, construction of healthcare facilities and schools, and sinking of boreholes. However, existence of mining companies has been linked to increased land conflicts, but with marginal impact on political and ethnic conflicts in Kwale County. There are several stakeholders involved in addressing these conflicts but there is need to train more members of the community on conflict-resolution mechanisms and mediation, on awareness creation, on community participation and benefit-sharing, and on advocacy in environmental protection.

REFERENCES

- Base Titanium, "Environmental programmes." Available at: http://basetitanium.com/ environment/environmental-programmes
- Chanji Tobias, "President Uhuru declares Makonde the 43rd tribe of Kenya." Available at: https://www.standardmedia.co.ke/article/2001227966/president-uhuru-declaresmakonde-43rd-tribe-of-kenya
- County Government of Kwale, "Kwale county background and history." Available at: http://www.kwalecountygov.com/
- County Government of Kwale, "Mining: Ongoing activities." Available at: http://www. kwalecountygov.com/index.php?option=com_content&view=featured&Itemid=937
- County Government of Kwale, "County Integrated Development Plan (2013-2017)." Available at https://cog.go.ke/images/stories/CIDPs/Kwale.pdf
- Galgalo Bocha, "17 Counties conflict hotspots." Available at: http://www.nation.co.ke/ news/17-counties-conflict-hot-spots/1056-3326106-mhkq45/index.html"
- Haki Jamii "Joint meeting between Base Titanium mining project liaison committee and mining host communities on compensation and agreed Resettlement Action Plan." Available at: http://www.hakijamii.com/index.php/2017/06/13/joint-meeting-betweenbase-titanium-mining-project-liaison-committee-and-mining-host-communities-oncompensation-and-agreed-resettlement-action-plan/
- Halimu Shauri, "Kwale County plan for countering violent extremism: The first of its kind in Kenya by Human Rights Agenda." Available at: https://www.researchgate.net/ publication/314119072_Kwale_County_Plan_for_Countering_Violent_Extremism_ The_first_of_its_kind_in_Kenya_by_Human_Rights_Agenda
- Human Rights Agenda, "Mining and the environment: An assessment of mining companies compliance with the environment, health and safety regulations and standards in Kwale, Kilifi and Taita Taveta counties in the coast region of Kenya." Available at http://www. huria.ngo/images/reports/Mine_Environ_Report_Draft1.pdf
- Jilani Meshack, "Base Titanium's Kwale project turning around life for the poor community in South coast." Available at: http://barakafm.org/2015/03/19/base-titaniums-kwaleproject-turning-around-life-for-the-poor-community-in-south-coast/
- Kenya National Bureau of Statistics & Society For International Development, "Exploring Kenya's inequalities: Pulling apart or pooling together." Available at: http://inequalities. sidint.net/kenya/wp-content/uploads/sites/3/2013/10/SID%20Abridged%20 Small%20Version%20Final%20Download%20Report.pdf

- Kenya National Bureau of Statistics, "Kenya population and housing census 2009." Available at: https://www.knbs.or.ke/?option=com_phocadownload&view=category&id=109%3A population-and-housing-census-2009&Itemid=599%2F
- Konkwo, Dede E.J. "Harnessing tradotronic media potentials for conflict resolution in Nigeria's Niger Delta." Available at: https://www.researchgate.net/profile/Emmanuel_Amoo2/publication/256216509_Home-based_female_sex_workers_and_exposure_to_HIV_in_Suburb_of_cities_in_Nigeria_IJSSHR_-_Vol2_No4_4th_edition_2011/links/0046352206da8705eb000000/Home-based-female-sex-workers-and-exposure-to-HIV-in-Suburb-of-cities-in-Nigeria-IJSSHR-Vol2-No4-4th-edition-2011.pdf#page=52
- Kwale County Natural Resource Network (KCNRN), "Mining in Kwale County, Where is the community? KCNRN Policy Brief No. 1 of 2014." Available at: https://sautiyawakwale. wordpress.com/2015/02/11/mining-in-kwale-county-where-is-the-community/
- Mathenge Thiong'o "Devolution and minerals behind escalating community conflicts." Available at: https://www.standardmedia.co.ke/article/2000140819/devolution-andminerals-behind-escalating-community-conflicts
- Nafziger Wayne, E. & Auvinen Juha, *Economic development, inequality, war, and state violence*, 2001. Available at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.667.7500&rep=rep1&type=pdf
- Nyassy, Daniel Tsuma, "School visit revives boundary wrangle." Available at: http://www. nation.co.ke/counties/taita-taveta/Taita-Taveta-Kwale-Boundary-Dispute-Mackinnon-Road/1183326-2314526-oqxhh4z/index.html
- Nyassy, Daniel Tsuma Nyassy and Mwabege Farouk, "County chiefs hold new talks on boundary dispute." Available at: http://mobile.nation.co.ke/counties/County-chiefs-hold-new-talks-on-boundary-dispute/1950480-2527194-format-xhtml-6vdku7z/index.html
- Pettigrew, Thomas F. "Relative Deprivation and Intergroup Prejudice." Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1540-4560.2008.00567.x/pdf
- Wafula Paul, "Drought hunger ravage five Coast counties." Available at: https://www.standardmedia.co.ke/article/2000220246/drought-hunger-ravage-five-coast-counties

V. LAMU COUNTY BASELINE SURVEY REPORT

Introduction

Lamu County borders the Republic of Somalia at the northeast, Garissa County to the north, Tana River County to the southwest, and the Indian Ocean to the south and east.¹ The county covers a land surface of 6,273 km² with a 130 km long coastline and water mass covering 308 km².² The area forms the Lamu archipelago which comprises the mainland and over 65 islands.³ According to the 2009 Population and Housing census, Lamu's total population was estimated to be 101,539.⁴

The county hosts two constituencies, Lamu East and Lamu West whose main economic activities are fishing, agriculture, tourism, shipping, arboriculture, jewellery, craftsmanship, wood carving, and building construction. Lamu is also a favourable place for the Lamu Port South Sudan Ethiopia Transport (LAPSSET) project making Lamu a future economic hub.

Contextual analysis

Socio-Political Situation

Although youth constitute 52% of the population a significant number are unemployed due to lack of skills and limited economic activities.⁵ Lamu records low literacy levels with Lamu West sub-county literacy levels estimated at 70%, whereas the literacy levels for Lamu East are estimated to be less than 30%.⁶ Lamu has a dependency ratio of 0.8, with 32% of its individuals

¹ National Environmental Management Authority, "Environmental Sensitivity Atlas of Lamu County" available at: http:// www.ku.ac.ke/schools/environmental/images/stories/docs/Lamu_Sensitivity_Atlas.pdf (Accessed 16/07/ 2017)

² Lamu County Government, "First County Integrated Development Plan 2013-2017" available at: https://cog. go.ke/images/stories/CIDPs/Lamu.pdf (Accessed 17/07/2017)

³ National Environmental Management Authority, "Environmental Sensitivity Atlas of Lamu County" available at: http://www.ku.ac.ke/schools/environmental/images/stories/docs/Lamu_Sensitivity_Atlas.pdf (Accessed 16/07/2017)

⁴ Kenya National Bureau of Statistics (KNBS), "The 2009 Kenya Population and National Census: Counting Our People for the Implementation of Vision 2030" available at: https://www.knbs.or.ke/?option=com_phocadownload &view=category&id=109%3Apopulation-and-housing-census-2009&Itemid=599%2F (Accessed on 07/08/2017)

⁵ Ibid., 6

⁶ Ibid., 6

living below the poverty line, a poverty gap of 16% stated as a percentage of poverty line, while the severity of poverty is measured at 10% and also expressed as a percentage of the poverty line.⁷ It has employment rates of 21% and with the above contributes to a Gini coefficient of 0.47. ⁸ Added to this, the county had 53% of its water sources improved & has only 17% electricity coverage.⁹

Although the county is endowed with diverse economic resources, its poverty level stands at 28.8% in rural areas and 45.24% in urban centers.¹⁰ This is attributed to unemployment, underexploited economic resources and limited financial empowerment. This study was conducted in Lamu Island, Faza and Kwasasi between May and June 2017.

Although the county is endowed with diverse economic resources, its poverty level stands at 28.8% in rural areas and 45.24% in urban centers.¹¹ This is attributed to unemployment, underexploited economic resources and limited financial empowerment.

Among its strings of islands, Lamu Island hosts Lamu town which is designated as a Cultural World Heritage Site by UNESCO for its historical and cultural significance for the Swahili and Islamic cultures of the region.¹² Figure 29 below shows the position of Lamu county.

Figure 29: Location of Lamu County



Source: Lamu County Government¹³

¹¹ Lamu County Government, "First County Integrated Development Plan 2013-2017" available at: https://cog. go.ke/images/stories/CIDPs/Lamu.pdf (Accessed 17/07/2017)

¹³ Lamu County Government, "Lamu County" available at: http://lamu.go.ke/about/ (Accessed 18/08/2017)

⁷ Ibid.

 ⁸ Ibid.

⁹ Ibid.

¹⁰ Lamu County Government, "First County Integrated Development Plan 2013-2017" available at: https://cog. go.ke/images/stories/CIDPs/Lamu.pdf (Accessed 17/07/2017)

¹² Ibid,3

According to the 2009 Population and Housing census, Lamu's total population was estimated to be 101,539.¹⁴ With a projected growth rate of 17% annually, the population is estimated to be 137,000 in 2017.¹⁵ Although youth constitute 52% of the population a significant number is unemployed due to lack of skills and limited economic activities.¹⁶ Lamu records low literacy levels: Lamu West sub-county has 70% literacy level, whereas Lamu East has less than 30% literacy level.¹⁷ A total of 33% of the county population has no formal education with only 13% of the residents having pursued the secondary level of education while 54% having attained only the primary level of education.¹⁸

The natives of Lamu County are the Watta and Bajuni communities. The county hosts two constituencies, Lamu East and Lamu West, whose main economic activities are fishing, agriculture, tourism, shipping, arboriculture jewellery, craftsmanship, wood carving, and building construction. Lamu is also a favourable place for the Lamu Port South Sudan Ethiopia Transport (LAPSSET) project making Lamu a future economic hub. Lamu County has significant marine resources in its islands, bays, creeks, sand bars, and mangrove swamps¹⁹ with its mineral resources located along a 50 km strip of the coastal area.²⁰

Lamu County has 13,000 land owners, hence a majority of the county residents especially in Lamu East live on ancestral land as squatters and lack title deeds.²¹ This has contributed to increased cases of land grabbing, illegal allocation, and registration of land in the county. In 2016, President Uhuru Kenyatta directed the National Land Commission to cancel title deeds irregularly acquired in 2015 for 350,000 acres of land whose ownership was disputed.²² In early

¹⁴ Kenya National Bureau of Statistics (KNBS), "The 2009 Kenya Population and National Census: Counting Our People for the Implementation of Vision 2030" available at: https://www.knbs.or.ke/?option=com_phoca download&view=category&id=109%3Apopulation-and-housing-census-2009&Itemid=599%2F (Accessed on 07/08/2017)

¹⁵ Lamu County Government, "First County Integrated Development Plan 2013-2017" available at: https://cog. go.ke/images/stories/CIDPs/Lamu.pdf (Accessed 17/07/2017)

¹⁶ Ibid,6

¹⁷ Ibid,6

¹⁸ Kenya National Bureau of Statistics & Society For International Development, "Exploring Kenya's Inequalities: Pulling Apart or Pooling Together" available at: http://inequalities.sidint.net/kenya/wp-content/ uploads/sites/3/2013/10/SID%20Abridged%20Small%20Version%20Final%20Download%20Report.pdf (Accessed on 07/08/2017)

¹⁹ National Environmental Management Authority, "Environmental Sensitivity Atlas of Lamu County" available at: http://www.ku.ac.ke/schools/environmental/images/stories/docs/Lamu_Sensitivity_Atlas.pdf (Accessed 17/07/2017)

²⁰ National Environmental Management Authority, "Environmental Sensitivity Atlas of Lamu County" available at: http://www.ku.ac.ke/schools/environmental/images/stories/docs/Lamu_Sensitivity_Atlas.pdf (Accessed 17/07/ 2017)

²¹ Lamu County Government, "First County Integrated Development Plan 2013-2017" available at: https://cog. go.ke/images/stories/CIDPs/Lamu.pdf (Accessed 17/07/2017)

²² Ibid, 19

1970s, the first president of the Republic of Kenya Jomo Kenyatta settled landless Kenyans mainly from the Kikuyu community from Murang`a and other parts of the former central province in Mpeketoni, Lamu County. The people who were settled had been expelled from Tanzania following fallout in the East African community.²³ The county has experienced perennial conflict stemming from the Mpeketoni settlement scheme where the Kikuyu community is believed to be targeted, as they own the fertile land at Witimere between Witu and Mpeketoni.²⁴

Mineral Resource Distribution

Lamu county is endowed with a number of exploitable mineral resources including oil and gas deposits, iron ore, ilmenite, titanium, salt, barites, limestone, coral rocks, hydrocarbon, natural gas, rutile, clay, silica, and building sand. Additionally, galena, manganese oxide and apatite are present in significant exploitable quantities.²⁵ The county presently exploits coral stones, sand, and limestone. Key sand and ballast quarrying sites in Lamu are in Lake Kenyatta, Kizingitini, Manda, Matondoni, and Faza.²⁶ Extensive exploration for oil and gas is also ongoing in the entire Lamu Basin.²⁷ The discovery of minerals in Lamu is expected to reshape the future of the county that has long relied on tourism for its economy. Table 12 below shows minerals and their location in Lamu County.

Minerals	Location
Oil	Pate Island(Siyu Village), Faza, Shella, Offshore, Deep Sea
Gas	Pate Island(Siyu Village), Faza, Shella, Magongoni
Coal	Hindi, Kwasasi
Titanium	Pate Island
Sand	Lake Kenyatta, Kizingitini, Manda, Matondoni and Faza.
Building stones	Hindi Ward, Witu Ward, Manda Area

Table 12: Minerals in Lamu County

Source: *Research findings*

²³ Bernard Sanga, "When 'mpekatoni' became Mpeketoni" available at: https://www.standardmedia.co.ke/ article/2000125006/when-mpe-katoni-became-mpeketoni (Accessed on 15/08/2017)

²⁴ Obi Anyadike, "Conflict dynamics on Kenya's coast" available at: http://www.irinnews.org/report/100394/ analysis-conflict-dynamics-kenya%E2%80%99s-coast (Accessed on 15/08/2017)

²⁵ Lamu County Government, "First County Integrated Development Plan 2013-2017" available at: https:// cog.go.ke/images/stories/CIDPs/Lamu.pdf (Accessed 17/07/2017). See also http://www.ku.ac.ke/schools/ environmental/images/stories/docs/Lamu_Sensitivity_Atlas.pdf

²⁶ National Environmental Management Authority, "Environmental Sensitivity Atlas of Lamu County" available at: http://www.ku.ac.ke/schools/environmental/images/stories/docs/Lamu_Sensitivity_Atlas.pdf (Accessed 17/07/2017)

²⁷ National Environmental Management Authority, "Environmental Sensitivity Atlas of Lamu County" available at: http://www.ku.ac.ke/schools/environmental/images/stories/docs/Lamu_Sensitivity_Atlas.pdf (Accessed 17/07/ 2017)

Oil is explored in Pate Island (Siyu village), Faza, Shella, Offshore, and Deep Sea. Gas is found in Pate Island (Siyu village), Faza, Shella, Magongoni. Coal, though not yet extracted, is found in Hindi, and Kwasasi while titanium of unknown quantity is found in Pate Island. Quarry mining is carried out in Hindi ward, Witu ward, and Manda area.

Oil and gas exploration is ongoing with its key explorers being British Gas Group (BG), Anadarko Petroleum Company, Total and Eni Oil industry company,²⁸ Thailand's PTT Exploration and Production Public Company Limited (PTTEP) and Pancontinental Oil & Gas.²⁹ Through its subsidiary Midway Resources International (MRI), Zarara Oil and Gas Company has been licensed to extract oil and gas exploration in Lamu East.³⁰ Other major companies carrying out exploration and production of oil in Lamu are BGP Oil & Gas Services, Kenol, British Petroleum, Sohi, and Shell. Table 13 below shows mining companies, countries of origin, and minerals exploited or explored in Lamu County.

Mining Company	Country of Origin	Mineral
Amu Power	Kenya(Consortium between Gulf Energy and Nairobi Securities Ex- change)	Coal
Anadarko Petroleum Company	United States of America	Oil and Gas
BGP Oil & Gas Services	China	Oil and Gas
British Oil industry company (BP)	United Kingdom	Oil and Gas
Eni Oil Industry Company	Italy	Oil and Gas
Kenol (Kenya Oil Company Limited)	Kenya	Oil and Gas
Pancontinental Oil & Gas	Australia	Oil and Gas
PTT Exploration and Production Public Company Limited (PTTEP)	Thailand	Oil and Gas
Shell Oil Company	United States of America	Oil and Gas
SwissOil Holdings International Ltd. (SOHI)	Switzerland	Oil and Gas
Total S. A.	France	Oil and Gas
Zarara Oil And Gas (Subsidiary of Midway Resources International)	Cayman Islands	Oil and Gas

Table 13: Extractive industry companies in Lamu County

Source: Research findings

²⁸ Unauthored, "Introduction to Kenya" available at: http://edgoenergy.com/wp-content/uploads/2014/01/ Lamu-Oil-and-Gas-in-Kenya.pdf (Accessed 17/07/ 2017)

²⁹ Ventures Africa, "Kenya Discovers Oil, Natural Gas in Lamu" available at: http://venturesafrica.com/kenyadiscovers-oil-natural-gas-in-lamu/ (Accessed 17/07/ 2017)

³⁰ Gari Alphonce, "Lamu County, residents endorse oil and gas exploration project" available at: http://www. the-star.co.ke/news/2017/05/11/lamu-county-residents-endorse-oil-and-gas-exploration-project_c1559101 (Accessed 17/07/ 2017)

A project by Amu Power, a private company that operates a Lamu coal-fired power 981.5-megawatt plant – Kenya's first ever coal project – has faced opposition by Lamu residents. However, the company has been licensed to operate, leaving Lamu residents disgruntled over limited public participation, an incomplete Resettlement Action Plan (RAP), and a poorly analysed Environmental Impact Assessment (EIA) report.³¹ The coal plant is projected to have an impact on the environment, biodiversity, and health for residents. Potential impacts include land clearance for plant infrastructure, water pollution, pollution of water bodies, and mining-induced settlement patterns.³² The exploration and exploitation of oil and illegal quarrying are also major contributors to environmental degradation in the county.³³

The coal plant is part of the Lamu Port South Sudan Ethiopia Transport (LAPSSET) corridor that will ensure Kenya's sustainable reliance on coal energy for sufficient power and industrial use.³⁴ The LAPSSET, that has since started, has various components in Lamu county that include Lamu port, Lamu resort city, oil refinery, Lamu airport, roads, oil pipeline, and railway line.³⁵ Despite the potential to revolutionize development in Lamu County and the country at large, the LAPSSET project is projected to destroy marine species through pollution and physical processes, block traditional fishing waters, and cause project-induced displacements among other negative impacts.³⁶

The coal plant has led to a conflict between promotion of investment in Lamu and environmental protection and preservation. Following the Environmental and Social Impact Assessment (ESIA) of the Lamu Coal Power Plant, the local community leaders, environmentalists and CBOs such as Save Lamu, Lamu Environmental Protection and Conservation (LEPAC) have opposed the project citing its detrimental and irreversible impact on Lamu.³⁷ Since receiving

³¹ Save Lamu, "Key Facts on the Lamu Coal Fired Power Plant" available at: http://www.decoalonize.org/wpcontent/uploads/2017/03/Lamu-Coal-Plant-Fact-Sheet.pdf (Accessed 17/07/ 2017)

³² National Environmental Management Authority, "Environmental Sensitivity Atlas of Lamu County" available at: http://www.ku.ac.ke/schools/environmental/images/stories/docs/Lamu_Sensitivity_Atlas.pdf (Accessed 17/07/ 2017)

³³ Ibid, 25

³⁴ Ministry of Energy and Petroleum, "Selection of firm to Conduct Resettlement Action Plan For 1,050 Mw Lamu Coal Fired Power Plant" available at: http://www.energy.go.ke/index.php/resources/file/902-lamucoal-plant-rap.html (Accessed 17/07/ 2017)

³⁵ National Environmental Management Authority, "Environmental Sensitivity Atlas of Lamu County" available at: http://www.ku.ac.ke/schools/environmental/images/stories/docs/Lamu_Sensitivity_Atlas.pdf (Accessed 17/07/ 2017)

³⁶ Kenya Human Rights Commission, "Forgotten in the scramble for Lamu: A position paper on the LAPPSET project in the case of the Aweer and the Fisherfolk" available at: http://www.khrc.or.ke/mobile-publications/ economic-rights-and-social-protection-er-sp/47-forgotten-in-the-scramble-for-lamu-a-position-paper-in-the-case-of-the-aweer-and-the-fisherfolk/file.html (Accessed 17/07/ 2017)

³⁷ Daniel Wesangula, "Kenya needs coal, but at what cost to these beautiful Kenyan islands?" available at: https://

an environmental green light from NEMA, the license is being challenged in court. The local community and CBOs organized public hearings and peaceful demonstrations against the project. The first of its kind in East Africa, the proposed coal plant in Lamu has exposed the soft underbelly between the environment ministry and energy ministry that oppose and support the project respectively.³⁸

Research findings

Perception on extractive industry policy(ies)

Lamu County lacks an extractive industry policy. This was ascertained by 60% of the respondents, as shown in Figure 30 below, who were aware that the county had no mining policy. However, a total of 17% of the respondents mentioned that, the county had a policy on extractive industry while 23% did not know whether the county had an extractive policy or not. These findings indicate low level of knowledge by some Lamu residents on county policies on extractive industry.



Figure 30: Knowledge on existence of extractive industry policy in Lamu County

Source: Research findings

www.standardmedia.co.ke/article/2000220781/kenya-needs-coal-but-at-what-cost-to-these-beautiful-kenyan-islands (Accessed 17/07/ 2017)

See also Heinrich-Böll-Stiftung e.V., "Rights and Resources Building Community Voice in the Mining Sector" available at: https://www.boell.de/sites/default/files/perspectives_april_2016_web.pdf (Accessed 17/07/ 2017)

³⁸ Jane Wangechi Mugambi, "Environment CS Wakhungu turns her back on Lamu's 204 billion coal project" available at: https://www.standardmedia.co.ke/business/article/2001244040/environment-cs-wakhunguturns-her-back-on-lamu-s-204-billion-coal-project (Accessed 17/07/ 2017)

The confusion around the existence or not of the mining policy is an indication that the term 'policy' relayed different connotations to different people. There are those who simply understood 'policy' as a county plan to exploit the mines and ensure that as many people as possible benefited from the natural resources; others understood policy to mean the right of the artisanal miners to exploit the natural resources; while others considered policy to refer to clear county strategy for managing natural resources. This variation in interpretation of the term 'policy' is a clear indication of the knowledge gap among the county residents and the need to incorporate them in policy-making processes.

Community participation in decision making

A total of 91% of the respondents underscored that county residents need to participate in decision making regarding extractive industry operations in the county. It is through public participation that the community will determine activities that will be signed for in the community development agreements. Respondents (23%) indicated that most Lamu residents are uncertain about operations of the mining companies present in the county. Trust and mutual respect between the communities and the companies can be fostered through awareness creation on the presence and operations of the companies in the county.

Impact of the extractive industry in Lamu County

The presence of extractive industries has had an impact on the livelihoods of the residents, environment, and conflict dynamics in Lamu County as discussed below.

Impact of extractive industry on livelihoods

The exploitation of mineral resources in Lamu County has had an impact on livelihoods of Lamu residents. This impact was determined by asking respondents to indicate the extent of effects of the extractive industries on income, employment, health, and education. The findings are illustrated in Figure 31 below.


Figure 31: Impact of extractive industry on livelihoods in Lamu County

Source: Research findings

Income

A total of 54% of the respondents indicated that the presence of mining companies in the county had not affected their income. This was attributed to the limited employment opportunities offered at the mining sites. Respondents (23%) affirmed that the presence of minerals in the county was beneficial to small scale and artisanal miners and those working in quarry mines. The low income from the mining sector can be substituted by alternative sources of income such as farming on arable land.

Employment

Figure 31 above shows that 48% of the respondents held the view that the presence of extractive companies in Lamu County had no impact on the levels of unemployment experienced in the region. They however remained optimistic as they anticipate employment opportunities from the LAPSSET project and Amu Power once it commences its operations in Kwasasi. According to 29% of the respondents, a few members of the community had benefited from employment opportunities, though contractual, from Zarara Oil and Gas Company, BGP and Amu Power. Respondents at a focus group discussion (FGD) in Kwasasi observed that Amu coal plant had employed 7 youth and a few other residents were employed to work on roads. However, they indicated that the employed residents were poorly remunerated, earning Ksh. 600 per day despite working from 6:00am to 10:00pm.

Health services

The presence of extractive industries in the county had not affected provision of health services as depicted by 68% of the respondents. However, 6% of the respondents noted that Total Oil Company had distributed healthcare machines to a hospital in Kwasasi.

Education

A total of 66% of the respondents, as shown in Figure 31 above, considered education minimally affected by the presence of extractive industries in the county. Other respondents (3%) pointed out that, education had moderately been affected by the presence of Amu Power that had distributed books to all the schools in Kwasasi. With a glimpse of the future, Lamu residents are optimistic of benefiting from the extractive industry once companies such as Amu Power commence their operations. Despite being aware of the benefits that can accrue once the companies commence their operations, the residents noted that they had not been consulted on what their needs are and what the industries can do for them to fulfill the needs.

Existing Corporate Social Responsibility (CSR) activities by extractive industries in Lamu County

Although extractive operations have not commenced, some companies have ongoing CSR programmes. Apart from Amu Power distributing books to all the schools in Kwasasi, it has given fishing nets and deep-sea diving equipment to fishermen. A community member from Kwasasi highlighted that Amu Power had given nursery tree plants to Kwasasi-based community-based organisations (CBOs) and individuals, and erected street lights in Kwasasi. Amu Power also contributes Ksh. 500,000 for the cultural festivals per year in the county and supplies water to residents of the Hindi area.

Overall expectations on Corporate Social Responsibilities (CSR) in Lamu County

The general expectation by respondents was that, companies operating in the county should do more for the community as demonstrated in Figure 32 below.



Figure 32: Overall expectations on Corporate Social Responsibility in Lamu County

Source: Research findings

Figure 32 above indicates that a majority (32%) of the respondents identified construction of schools and healthcare facilities as the main CSR activity expected from mining companies, while 28% suggested provision of education scholarships. A total of 20% of respondents prioritized provision of clean water while 15% mentioned construction of roads. Other respondents (5%) proposed training of fishermen on deep-sea diving and setting up a tertiary mining institution.

Impact of extractive industry on environment

A majority of 74% of the respondents indicated that operations of extractive industry had a negative impact on the environment. A resident of Lamu Island pointed out that in its oil prospecting phase Zarara Oil and Gas Company used explosives which damaged the agricultural system and biodiversity, affecting farmers and fishermen. An employee of Save Lamu observed that abandoned quarry sites were a breeding ground for mosquitoes. This wasted lands should be reclaimed and put into productive use.

Oil and gas operations in Lamu County are still in the exploration phase, hence the communities have limited knowledge of the impact of the industry on human life, biodiversity, and their surroundings once the production phase commences. It is therefore recommended that the community be given reliable information so that they can take part in discussions regarding environmental protection.

Impact of extractive industry on conflicts

Figure 33 below illustrates the impact of the extractive industry sector on conflict in Lamu County. A majority (57%) of the respondents indicated that Lamu County had experienced more land conflicts since the advent of extractive industries in the region. The places most affected by these land conflicts are Kwasasi, Uyoni, Siyu, Kandhari, Minazini, and Paradise. According to respondents (57%), land conflicts commenced when multinational companies started acquiring land with prospects of mineral deposits.

According to 67% of the respondents, as depicted in Figure 5 below, Lamu County faces minimal ethnic conflict arising from extractive industry operations. However, a media representative from Lamu Island highlighted that ethnic conflicts occur mostly in Lamu West unlike in Lamu East where the community is largely composed of the Bajuni and nominal numbers of Luo, Meru, Pokomo, and Giriama.



Figure 33: Impact of extractive industry on conflict in Lamu County

Source: Research findings

Research findings (57%) established that land conflicts are rampant in Lamu West compared to Lamu East, which experiences minimal land conflicts. This discrepancy was attributed to the poor land adjudication process and limited issuance of title deeds to Lamu West land owners. A community activist from Lamu Island explained that most indigenous Lamu residents live as squatters on their own land which was illegally acquired by fraudulent land proprietors. These

indigenous land owners, especially those in Kwasasi, Ilani B, and Uyoni have lost their lands and land compensation benefits given by mining companies.

A total of 60% of the respondents illustrated that the county experiences marginal political conflict from the presence of extractive industries. Although Lamu's political landscape remains unaffected by the extractive sector, operations in the mining industry have been affected by political interference. An opinion leader from Lamu Island pointed out that some politicians want the coal plant to kick off while some are not in support due to vested interests.

Conflict resolution mechanisms

As indicated in Figure 34 below, a total of 43% of the respondents held the view that county government interventions were least effective in resolving mining-related conflicts. Respondents ascertained that they had only seen the national environmental and tribunal court handling environment-related conflicts.

Figure 34 below indicates that 47% of the respondents were of the view that chiefs, assistant chiefs and village elders were involved in dialogues aimed at resolving conflicts between mining companies and residents. However, they were accused of accepting bribes and as a result biased in their judgements.



Figure 34: Contribution of various actors in addressing conflicts in Lamu County's extractive industry

Source: Research findings

Non-governmental organizations (NGOs), community based organization (CBOs) and faithbased organizations (FBOs), according to 60% of the respondents, had played a role in conflict resolution in extractive industry. Respondents commended Save Lamu and Lamu Environmental Protection and Conservation (LEPAC) for their advocacy work in protecting and promoting community concerns. However, they expressed concerns over some civil society organisations (CSOs) linked to accepting bribes to alter their advocacy campaigns, which taint their independence and lowers public confidence.

The following mechanisms were proposed to address conflicts arising due to extractive industry operations in Lamu County:

- a) Sheikhs and other religious leaders should be fully involved as mediators because people listen to them.
- b) Community leaders and chiefs need to be trained on conflict management and resolution mechanisms. Such training should be held by subject matter experts.

Assessment for Community Chartered Mediators

A majority 77% of the respondents acknowledged that there are no trained members/ groups in the community who can intervene on behalf of the community while 20% said that there are groups which are already in place. Trained individuals were drawn from Lamu for Youth Alliance, Save Lamu, Kikozi, MUHURI (Muslims for Human Rights), local leaders, and Amu Power. The respondents recommended that youth leaders and women groups, chiefs and assistant chiefs, religious leaders, and Al Wasila media communication be trained as conflict resolution mediators.

Areas of training to enhance community participation in extractive industry

All respondents agreed that there is a need to train Lamu residents, to enhance community participation in the extractive industry operations as illustrated in Figure 35 below. A majority (31%) of the respondents proposed training on environmental protection while 27% settled on conflict management and resolution. A total of 22% of respondents pointed out that awareness creation on community participation is a key area of training whereas 12% mentioned awareness creation on benefits-sharing as a critical area. Other respondents (8%) suggested training Lamu residents on extractive industry policies and training fishermen on effective and efficient use of deep-sea diving equipment.



Figure 35: Key areas of training for chartered mediators in Lamu County

Source: Research findings

Policy recommendations

The national government should:

- i. Complete land adjudication process for Lamu land owners: the national government through the National Lands Commission has not completed the land adjudication process and issuance of title deeds in Lamu. These have left Lamu residents with lack of protected land ownership and more vulnerable to exploitation. Issuance of title deeds will reduce land conflicts that have been attributed to lack of land title documents.
- ii. Revise the benefits sharing section of the Mining Act 2016. Mining Act 2016 requires the mining royalties to be split as follows: 70% to the National government, 20% to the County governments and 10% to the community where the mining operations occur. Local residents in Lamu recommend that 30% of the revenue should be taken by the National government, 40% allocated to the community and 30% to the County government. The revision of the section will ensure that the community benefits adequately from mining operations in the area.
- iii. Harmonize measures addressing environmental degradation: respondents recommended that for sustainable environmental protection there should be synergy be-

tween the county government, national government, extractive companies, community members, and local organizations. This strategy will ensure that mitigation measures are harmonized and sustainable.

County government needs to:

- i. Formulate a comprehensive extractive sector policy that covers social impact gaps: the county should ensure that local communities and CSOs are among the key stakeholders in formulation of a county extractive policy in order to address community concerns.
- ii. Manage community expectations: Lamu residents expressed high expectations for benefits from extractive operations in the county. These expectations should be managed to ensure that they are not unrealistic, through continuous awareness on the extractive sector operation phases. Doing so will ensure that communities are educated that any potential benefits from mineral deposits in the county are not instantaneous.
- iii. Commit to transparency and credibility: Existence of corruption was established in various forms such as bribery of local government administrators (such as chiefs), forgery of title deeds and illegal acquisition of title deeds. Transparency in service provision would preserve the integrity of the public offices, build confidence, and provide an opportunity for the local population to see concrete benefits of the extractive operations in the county.

Extractive companies needs to:

- i. Create awareness about extractive sector operations: extractive companies should hold stakeholder communication meetings with the community to create awareness of their presence and ongoing operations. Doing so will foster mutual respect, building of trust, handling of complains, and grievances. Such meetings will also inform the communities of potential impacts of extractive company operations on the environment.
- Consult communities on Corporate Social Responsibility (CSR) programmes: before settling on investments to contribute to the social and economic development of the local communities, extractive sector companies should consult the community. This will ensure that the CSR activities fill specific gaps from the community perspective. This can be achieved through community-development agreements and ongoing engagement with liaison committees.
- iii. Set up a grievance handling mechanism: it was established that some aggrieved land owners, farmers, contractual employees, and farmers in Lamu had grievances as a

result of the extractive operations in the county. A grievance handling mechanism will receive and resolve complaints emanating from the community for better resolution and collaboration.

iv. Give proper compensation: following the use of explosives by some mining companies during the surveying phase, most fishermen and farmers were affected. This therefore calls for proper compensation from the extractive companies to the affected parties since they are solely dependent on fishing and farming for livelihood. It was also recommended that the companies should cease bombing mangrove farms and polluting water bodies.

CSOs and NGOs needs to:

- i. Conduct education campaigns: CSOs should ensure their sources of information are factual before engaging the community. This would empower the local community to participate in negotiations with multinational companies, so that they can adequately influence decisions on matters such as environmental protection, CSR, and benefits sharing.
- ii. Engage in robust, transparent, and evidence-based advocacy: organisations such as Save Lamu and LEPAC have been commendable in their advocacy work in protecting and promoting community concerns. However, some CSOs have been linked to accepting bribes to alter their advocacy campaigns, which taint their independence and lowers public confidence. By carrying out more objective advocacy campaigns the organisations will maintain community trust.

Lamu residents need to:

i. Embrace education outreach programs: a large population in Lamu County is illiterate and is in dire need of civic education and awareness on the presence and operations of extractive industries in the region. Sufficient information on potential impacts of extractive industry operations in the county should be provided so that communities can make informed decisions.

Conclusion

This research was carried out to assess the existing capacity in Lamu County, particularly in addressing challenges and opportunities of the extractive industries sector and identification of gaps in knowledge, policy, advocacy, and research. The research applied descriptive research design, but more specifically baseline survey, in order to highlight the key elements of knowledge

and policy gaps in the extractives industry. The study used both qualitative and quantitative research methods.

The study established that there are gaps in knowledge, policy, and advocacy in the extractives industry in Lamu County. The major knowledge and policy gaps included: limited knowledge on the existence of county extractive industry policy; minimal community participation in extractive sector operations; ignorance on the impact of mining activities on the environment; limited number of trained mediators who can intervene between the community, government and the multinational corporations (MNCs); and a poor land adjudication process. Lamu residents are yet to benefit from employment opportunities, healthcare facilities, construction of schools and boreholes, and scholarship awards from the presence of mining companies in the county. Existence of mining companies has been linked to increased land conflicts, but with marginal impact on political and ethnic conflicts in Lamu County. There are several stakeholders involved in addressing these conflicts however there is need to train more members of the community on conflict resolution mechanisms and mediation, awareness creation on community participation and benefits-sharing, and advocacy on environmental protection.

REFERENCES

- Anam Luke, 2017, "Why Lamu power project is being scrutinized." Available at: https://www.standardmedia.co.ke/business/article/2001245249/why-lamu-power-project-is-being-scrutinised
- Anyadike Obi, "Conflict dynamics on Kenya's coast." Available at http://www.irinnews.org/ report/100394/analysis-conflict-dynamics-kenya%E2%80%99s-coast
- Gari Alphonce, "Lamu County, residents endorse oil and gas exploration project." Available at: http://www.the-star.co.ke/news/2017/05/11/lamu-county-residents-endorse-oil-and-gas-exploration-project_c1559101
- Heinrich-Böll-Stiftunge.V., "Rights and Resources Building Community Voice in the Mining Sector." Perspectives, political analyses and commentary: Africa. 1(2016), pp. 10- 13. Available at: https://www.boell.de/sites/default/files/perspectives_april_2016_web.pdf
- Kazungu Kalume, "Private developers in Lamu accused of hindering quick resolution of land cases." Available at http://www.nation.co.ke/counties/lamu/land-cartels-Lamu/3444912-3464596-v3vislz/index.html
- Kenya Human Rights Commission, 2014, "Forgotten in the scramble for Lamu: A position paper on the LAPPSET project in the case of the Aweer and the Fisherfolk." Available at: http://www.khrc.or.ke/mobile-publications/economic-rights-and-social-protection-er-sp/47-forgotten-in-the-scramble-for-lamu-a-position-paper-in-the-case-of-the-aweer-and-the-fisherfolk/file.html
- Kenya National Bureau of Statistics (KNBS), "The 2009 Kenya Population and National Census: Counting Our People for the Implementation of Vision 2030." Available at: https://www.knbs.or.ke/?option=com_phocadownload&view=category&id=109%3Apo pulation-and-housing-census-2009&Itemid=599%2F
- Konkwo, Dede E.J. "Harnessing tradotronic media potentials for conflict resolution in Nigeria's Niger Delta." Available at: https://www.researchgate.net/profile/Emmanuel_ Amoo2/publication/256216509_Home-based_female_sex_workers_and_exposure_ to_HIV_in_Suburb_of_cities_in_Nigeria_IJSSHR_-_Vol2_No4_4th_edition_2011/ links/0046352206da8705eb000000/Home-based-female-sex-workers-and-exposure-to-HIV-in-Suburb-of-cities-in-Nigeria-IJSSHR-Vol2-No4-4th-edition-2011.pdf#page=52
- Lamu County Government, "First County Integrated Development Plan 2013-2017." Available at: https://cog.go.ke/images/stories/CIDPs/Lamu
- Lamu County Government, "Lamu County." Available at: http://lamu.go.ke/about/
- Ministry of Energy and Petroleum, 2016, "Selection of firm to conduct Resettlement Action Plan for 1,050 Mw Lamu Coal Fired Power Plant." Available at: http://www.energy.go.ke/

index.php/resources/file/902-lamu-coal-plant-rap.html

- Mugambi Wangechi, 2017, "Environment CS Wakhungu turns her back on Lamu's 204 billion coal project." Available at: https://www.standardmedia.co.ke/business/article/2001244040/environment-cs-wakhungu-turns-her-back-on-lamu-s-204-billion-coal-project
- Nafziger Wayne, E. & Auvinen Juha, *Economic development, inequality, war, and state violence*, 2001. Available at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.667.7500&rep=rep1&type=pdf
- National Environmental Management Authority, "Environmental Sensitivity Atlas of Lamu County." Available at: http://www.ku.ac.ke/schools/environmental/images/stories/ docs/Lamu_Sensitivity_Atlas.pdf
- Pettigrew, Thomas F. "Relative Deprivation and Intergroup Prejudice." Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1540-4560.2008.00567.x/pdf
- Sanga Bernard, "When 'mpekatoni' became Mpeketoni." Available at: https://www.standardmedia.co.ke/article/2000125006/when-mpe-katoni-became-mpeketoni
- Save Lamu, "Key facts on the Lamu coal fired power plant." Available at: http://www. decoalonize.org/wp-content/uploads/2017/03/Lamu-Coal-Plant-Fact-Sheet.pdf
- Un-authored, "Introduction to Kenya." Available at: http://edgoenergy.com/wp-content/ uploads/2014/01/Lamu-Oil-and-Gas-in-Kenya.pdf
- Ventures Africa, "Kenya discovers oil, natural gas in Lamu." Available at: http://venturesafrica. com/kenya-discovers-oil-natural-gas-in-lamu/
- Wesangula Daniel, "Kenya needs coal, but at what cost to these beautiful Kenyan islands?" Available at: https://www.standardmedia.co.ke/article/2000220781/kenya-needs-coalbut-at-what-cost-to-these-beautiful-kenyan-islands

VI MIGORI COUNTY BASELINE SURVEY REPORT

Introduction

Migori County is located in the southwest of Kenya and bordering Tanzania to the west. It covers an area of 2,597 km²³⁹ and is divided into seven sub-counties. The county's key economic activities include: fishing, subsistence farming (apart from sugarcane and tobacco growing), livestock keeping, trade, and mining. This study was conducted in Migori County between May and June 2017.

Contextual analysis

Socio-Political Situation

Located in the southwest of Kenya and bordering Tanzania to the west, Migori County covers an area of 2,597 km² with a projected population of 1,243,272 persons in the year 2017.⁴⁰ The county is cosmopolitan with dominant tribes being the Luhya, Kuria, Luo, Kisii, Suba, and Somalis. Migori County's key economic activities include fishing, subsistence farming (apart from sugarcane and tobacco growing), livestock keeping, trade and mining.⁴¹ Migori County exhibits low literacy and high child labour levels and the poverty level is estimated at 45.6%.⁴² Migori has a dependency ratio of 1.1, with 50% of its individuals living below the poverty line, a poverty gap of 12% stated as a percentage of poverty line, while the severity of poverty is measured at 4% and also expressed as a percentage of the poverty line.⁴³ It has employment

³⁹ Migori county, "First county integrated development plan 2013-2017" available at: https://cog.go.ke/images/ stories/CIDPs/Migori.pdf (Accessed 07/08/2017)

⁴⁰ Migori county, "First county integrated development plan 2013-2017" available at: https://cog.go.ke/images/ stories/CIDPs/Migori.pdf (Accessed 07/08/2017)

⁴¹ Migori county, HIV & AIDS Strategic Plan (2015/2016 – 2018/2019) "Towards Ending the HIV Epidemic in Migori County." Available at National Aids Control Council: http://nacc.or.ke/ (Accessed 08/07/2017)

See also Odhiambo Elizabeth Anyango, "Factors influencing sustainability of gold mining projects in Rongo Sub County, Migori County" available at: University of Nairobi: http://erepository.uonbi.ac.ke/

⁴² Migori County, "HIV & AIDS Strategic Plan (2015/2016 – 2018/2019): Towards Ending the HIV Epidemic in Migori County" available at: http://nacc.or.ke/?mdocs-file=3775&mdocs-url=false (Accessed 08/08/2017)

⁴³ Ibid.

rates of 12% and with the above contributes to a Gini coefficient of 0.46. ⁴⁴ Added to this, the county only had 28% of its water sources improved & has only 5% electricity coverage.⁴⁵Figure 36 shows the location of Migori County in Kenya.



Figure 36: Location of Migori County

Source: Soft Kenya⁴⁶

⁴⁴ Ibid.

⁴⁵ Ibid.

⁴⁶ Soft Kenya, "Map of Migori County" available at: https://softkenya.com/kenya/migori-county/ (Accessed 21/08/2017)

Mineral Resource Distribution

Migori County is endowed with a wealth of resources including gold, zinc, diamond, sulphur, copper, azarite, silver, iron ore, aluminum, blue sapphire, soapstone, green garnet and sand, rock deposits, and clay soils. Gold deposits are found in Macalder, Masara, Masaba, Kehancha, Kitere, Kamwango, Migori, Karungu, Kehancha, and in the Kuria-Transmara border.⁴⁷ Copper, azarite, zinc, and silver are found in Macalder in Nyatike sub-county. The county has adequate reserves of good quality sand found in Sori, Isebania, along Lake Victoria, river Migori, Kuja, and Kuria. Upper regions of Nyatike and Uriri are endowed with rock deposits from which hardcore and stones are extracted for the construction industry while Uriri, Rongo and Kuria have abundant deposits of clay soils suitable for pottery and brick making.⁴⁸ Table 14 below indicates the minerals and their different locations in Migori County.

Minerals	Location
Gold	Nyatike (Nyatuoro, Akala, Osiri, Macalder, Masara, Mikei, Kagumbo, Kachuda, Sayote, Kobunya, Apidi, Ugungu), Kuria (Karos, Kehancha Stadium, Kurutiangi, Number 5), Rongo, Awendo and Suna West
Iron ore	Kuria
Green garnet	Macalder
Copper	Macalder
Soapstone	Macalder
Diamond	Macalder
Zinc	Macalder
Azarite	Macalder
Aluminum	Macalder
Blue sapphire	Nyatike
Sand	Sori, Isebania, along Lake Victoria, River Migori, Kuja and Kuria
Rock deposits	Nyatike and Uriri
Clay soils	Uriri, Rongo, Kuria

Table 14: Minerals in Migori County

Source: Research findings

⁴⁷ Migori county, "First county integrated development plan 2013-2017" available at: https://cog.go.ke/images/ stories/CIDPs/Migori.pdf (Accessed 07/08/2017)

⁴⁸ Migori county, "First county integrated development plan 2013-2017" available at: https://cog.go.ke/images/ stories/CIDPs/Migori.pdf (Accessed 07/08/2017)

These minerals are explored on artisanal scale by individual and cooperative proprietors but their exploration at commercial levels has not been determined. Gold mining is a growing industry in the county with artisanal mining being the most dominant type alongside private mines and public mines. Public mines are mining activities on public land such as Osiri mines in Nyatike. Individual mines are mines carried out on individual local land, for example, Nyatuoro mines in Nyatike and Karosi mines in Kuria. They are owned by the locals who are the land owners of the particular mining area, whereas private mines are privately owned mostly by nonlocals who acquired land from individuals.

The private mines visited were not willing to disclose their identities and country of origin. The local communities were not aware of exisiting mining companies but mentioned that a number of the private mines were owned by Somalis and Chinese. The county government ascertained that there exists no formal mining company since most operate illegally posing as small scale retail miners. Findings confirmed that companies such as Macalder, Mid Migori, and Redrock no longer operate mainly due to lack of local political goodwill.

Gold is associated with massive sulphides, namely pyrrhotite, pyrite, sphalerite, chalcopyrite, and galena.⁴⁹ Gold mining in Migori county is majorly done through open-pit mining, underground operations, and alluvial mining along rivers. The ore is then crushed and panned. Extraction of gold in the county is carried out with limited considerations of sustainability for present and future generatrions to enjoy the benefits from mining.⁵⁰ Gold mining methods currently in use are surface and underground. Surface mining comprises both alluvial and mechanical mining such as open case. whereas underground mining involves the use of supported and unsupported mining methods. Although gold mining generates high levels of income, the standards of living for a majority of the people have not improved, as depicted by 45.6% of the population who live below the poverty line. Some of the challenges that arise from mining include acid mine drainage, air and noise pollution, the frequent collapse of mining holes, heavy metals pollution, mine caving, and mercury pollution. Mining activities in Nyatike, Rongo, Suna West, Kuria East and Kuria West have been identified as one of the key HIV driving factors in Migori County.⁵¹

Many gold mines are open-air pits leading to substantial air pollution from dust and fumes produced during excavation and smelting. These pits are often left open by mining companies

⁴⁹ Department of Geology, University of Nairobi, "Safe gold mine development and mining methods in Migori county-Kenya" available at: http://geology.uonbi.ac.ke/sites/default/files/cbps/sps/geology/ SAFE%20GOLD%20MINE%20DEVELOPMENT%20AND%20MINING%20METHODS%20IN%20 MIGORI%20COUNTY-KENYA.pdf (Accessed 08/08/2017)

⁵⁰ Odhiambo Elizabeth Anyango, "Factors influencing sustainability of gold mining projects in Rongo Sub County, Migori County" available at: http://erepository.uonbi.ac.ke/ (Accessed 08/08/2017)

⁵¹ Migori County, "HIV & AIDS Strategic Plan (2015/2016 – 2018/2019): Towards Ending the HIV Epidemic in Migori County" available at: http://nacc.or.ke/?mdocs-file=3775&mdocs-url=false (Accessed 08/08/2017)

and individual artisanal miners. These holes become death traps for animals and humans instead of them being reclaimed to support agricultural activities and to render them productive again. Despite the introduction and promotion of environmental best practices, gold mining in Rongo sub-county and neighbouring regions still relies on ordinary manual working tools.⁵² This is as a result of lack of exposure to mining technology and equpment.

Research findings

Perception on existing extractive industry policy(ies)

As illustrated in Figure 37 below, a majority (80%) of the respondents indicated that Migori County had no policy on extractive industry. This was confirmed by the environment officer in the county government who stated that a bill on extractive industry is currently under formulation. Other respondents (20%) did not know whether the county has an extractive sector policy or not. This indicates the gap in knowledge on the county's extractive industry; some community members have little knowledge of county policies.



Figure 37: Perceptions on existence of extractive industry policy in Migori County



The County Government officers interviewed attributed their failure to implement the Mining Act 2016 to the nature of informal and illegal mining activities carried out in the county which makes it difficult for the County Government to engage formally with actors in the mining industry. They emphasized the need for the national government to issue licenses and permits to miners as it is only after mining operations are formalized that the County Government can objectively get their hands on implementation. The county officers too expressed the need for

⁵² Odhiambo Elizabeth Anyango, "Factors influencing sustainability of gold mining projects in Rongo Sub County, Migori County" available at: http://erepository.uonbi.ac.ke/ (Accessed 08/08/2017)

the government to be fast in setting up systems for effective implementation of the Mining Act 2016.

Community participation in decision making

A total of 94% of the respondents strongly agreed to more community participation in decision making regarding the extractive industry operations in Migori County. Most respondents argued that, since Migori residents face direct consequences from the mining activities such as environmental degradation, destruction of roads, and deterioration of health among others, they should be involved in all that entails mining.

Impact of the extractive industry in Migori County

The exploitation of mineral resources is prone to socio-cultural, economic, and environmental impacts whose net effect has had an impact on the livelihoods of local communities, on conflict dynamics, health, and environment of Migori County as discussed below.

Impact of the extractive industry on livelihoods

Presence of the extractive industry in Migori County has had an impact on livelihoods. This impact was measured by asking respondents to indicate its extent particularly in relation to income, employment, health, and education as illustrated in Figure 3 below.



Figure 38: Impact of extractive industry on livelihoods in Migori County

Source: Research findings

Income

According to the findings, 63% of the respondents were of the opinion that the extractive industry moderately affected income in the county. Although they agreed that mining is their main source of income, the respondents heavily complained of the income being meager. There was a general outcry for the need of government intervention to help them get a direct international market and to shield them from cartels. Despite exposing themselves to harmful chemicals such as mercury, women are underpaid for cleaning the sand to get gold. For example, women are paid Ksh. 200 for panning yet the cost of gold per gram ranges between Ksh. 2500 to Ksh. 3300.

Employment

A total of 50% of the respondents indicated that exploration of mineral reserves in Migori County had moderately affected employment in the region. Although they admitted that mining has created employment, the miners complained of poor working conditions and low payments. In addition, mine workers lacked protective gear despite handling harmful chemicals such as mercury, thus risking their health. There were complaints of bronchitis due to exposure to dust and frequent deaths caused by caved mines. In Komworo, a worker complained of ethnic discrimination on wage payment and about general treatment in some of the private mines. For example, he cited that the Somali mine owners favoured Somali mine workers in remuneration. In a focus group discussion in Nyatike, participants raised concerns over employment discrimination against old people who are dependent on this work. Most people prefer youths for their productivity. A female mine worker in Osiri mines observed that sexual exploitation was common in the sector. She observed that sometimes women give sexual favors to be employed by their male counterparts.

Health services

Most respondents (47%) pointed out that the provision of health facilities has not been affected by mining activities in Migori County despite the negative health effects suffered by those working in and living within the mining regions. A resident near Nyatuoro mine cited how workers develop bronchitis because of exposure to dust and lack of protective gadgets. The underground method used in gold mining is characterized by limited air circulation making mines a breeding ground for infectious diseases such as tuberculosis.

The findings indicated that the use of mercury and other toxic chemicals in gold extraction is rampant in Migori County. The mercury has led to skin cancer and neurological ailments among mine workers in the county. Most mine workers asserted the need for protective gadgets such as gloves, nose pads, and air filters. An environment officer from the ministry of environment in Migori County government proposed the use of crushers as opposed to mercury which has detrimental health effects.

Respondents affirmed that most mining sites lacked adequate public health and sanitation facilities such as toilets and safe drinking water. According to the findings, collapsing mining tunnels caused by haphazard mining procedures and techniques led to the loss of life and injuries in the county. Apart from open pits being a death trap for animals and human beings the water-logged pits become mosquito breeding sites.

Education

Mining activities in the region have adversely affected the education sector as noted by 50% of the respondents in Figure 38 above. The outcry was mostly in Nyatike where students abandon school to work in gold mines while others engage in prostitution, which is lucrative at mining sites. Cases of early marriages were also reported to be high in the region. Members of a focus group discussion in Nyatike complained of rampant child labor in the mines without action from county authorities. A county administration officer recommended youth leadership training on life skills, especially for girls, and county-wide awareness creation on the importance of education.

Agriculture

Members in a focus group discussion in Nyatike mentioned that, mining activities in Nyatike sub-county have affected agriculture since most people have abandoned farming for mining, posing a great risk of food insecurity. However, in Kuria farming is taken seriously and it is still a priority since Kuria residents work on their farms before embarking on mining activities.

Existing Corporate Social Responsibility (CSR) activities by extractive industries in Migori County

All respondents stated that, there are no benefits shared with the community from extractive industry proceeds and instead they argued that, mining activities had caused more damage than good. Lack of corporate social responsibility activities was attributed to the informal structure and illegal activities carried out in the mines, hence no responsibility for community benefits. The only CSR activities witnessed by the community were Macalder primary school built and a borehole sunk decades ago in Nyatike sub-county by Macalder mining company before they exited mining in the county.

Overall expectation on Corporate Social Responsibilities (CSR) in Migori County

Most respondents (25%), as illustrated in Figure 39 below, identified construction of schools and healthcare facilities as the major CSR activity expected from mining companies. Provision of clean water stood out for 23% of respondents whereas 21% preferred the construction of roads and 20% mentioned the need for education scholarships.



Figure 39: Overall expectations on Corporate Social Responsibility in Migori County

Source: Research findings

Figure 39 above depicts that other respondents (11%) suggested establishment of cooperative societies for artisanal miners, sponsoring civic education in the community, creation of micro-financing facilities, building of a social hall and sports grounds, setting up vocational training centers, sponsoring gender equality programs, and environmental degradation mitigation programs.

Impact of extractive industry on environment

Even though gold mining is regarded as a source of income in Migori County, it has significant negative impacts on the environment as attested by 70% of the respondents. Gold extraction in the county has led to deforestation and substantial loss of sugarcane farmland which has been transformed into mining sites. In addition, toxic chemicals such as mercury and cyanide used

in gold extraction have detrimental effects on soil, water, air, human health, animals, birds, and aquatic life. Respondents observed significant water pollution through siltation and colouration in Migori County especially in the Migori, Kuja, and Mickey rivers and in Macalder streams. This directly affects the local community which depends on the contaminated rivers for domestic use and fishing. A miner in Osiri mines observed that, lack of proper sanitation facilities such as clean water and latrines posed an environmental hazard around the mining sites.

Impact of extractive industry on conflicts

As illustrated in Figure 40 below, a majority (40%) of the respondents indicated that land conflicts were highly frequent in Migori County as a result of mining activity. This was especially experienced in private mines compared to public mines because most private mines have informal land agreements, some of which were exploitative to land owners. Respondents pointed out that private mine owners take advantage of the poverty, illiteracy, and ignorance of the locals and end up purchasing land at a throw-away price.



Figure 40: Impact of extractive industry on conflict in Migori County

Source: Research findings

Land ownership conflicts arise when compensated land owners reclaim their land back once they know it possesses gold. The county registrar of lands attributed the informal transactions to unregistered land but mentioned that issuance of title deeds commenced in February 2017. Further interrogation of respondents, however, showed that due to lack of knowledge on the importance of title deeds locals took a long time to pick up their deeds.

According to the findings, 30% of the respondents, mostly from urban centers and those who do not work in mines, were of the view that the county experienced no ethnic conflict in relation to mining operations. Other respondents (22%) mentioned the existence of ethnic conflicts as they cited widespread discrimination in wages and remuneration among Somali workers and Migori residents in Somali-owned private mines. A resident of Lwanda Konyango pointed out that, clannism contributed ethnic conflicts in the mining sites since miners from certain clans receive favours from their clansmen. This argument was upheld by a CBO chair who alleged that the clannism is championed by politics.

A total of 36% of respondents pointed out that the county experienced political conflict due to mining operations. According to the findings, private mines are mostly affected by political dynamics. Respondents mentioned that some politicians extort significant amounts of money from private miners making their cost of operations very high, so that sometimes they shy off from mining. A member of a FGD in Nyatike observed that there is rampant political interference through political advocacy against mining companies such as Macalder and Redrock leading to their exit. Even though public and individual mines are minimally affected by political interests they are disgruntled by private mines owned by politicians that do not adhere to any policies or laws.

Other respondents mentioned that there are conflicts between officers from national and county governments. Findings showed that county mining officers intimidate and interfere with the work of officers seconded from the national government. This was aggravated by miners who perceived mining officers as "enemies". This interference was attributed to lack of information on the roles of mining officers, hence the unfriendly relationship. This can be dealt with through civic education, awareness creation on the roles of various stakeholders, and the establishment of sustainable synergies.

Conflict resolution mechanisms

There are various actors involved in addressing conflicts that arise as a result of extractive industry operations in Migori County. The contribution of the actors is shown in Figure 41 below.



Figure 41: Contribution of various actors in addressing conflicts in Migori County's extractive industry



Figure 41 above shows that 45% of the respondents held the view that chiefs, assistant chiefs and village elders were most effective in resolving mining related conflicts at the community level. The findings indicated that mining areas have committees for overseeing activities and settling disputes. These committees, developed within public mines, were rated as very good by a total of 40% of the respondents while NGO, CBO and FBO interventions were rated as very good by 37%. Nyamoka Citizen Voice Action, a CBO, and National Council of Churches in Kenya (NCCK), an FBO, were mentioned as hosting dialogues to resolve conflicts between and among various stakeholders in the mining sector.

County government interventions were rated as bad by 46% of the respondents. The community observed that officers from the county offices rarely participated in conflict resolution. Even though the deputy county commissioner has been involved in addressing conflicts related to mining operations, other officers at the county cited the informal mining operations as a great limiting factor. The findings also indicated that conflicts at the family level resulting from mining activities are solved by village elders, clansmen, and relatives. Other stakeholders, namely the police, ministry of lands, and judiciary were mentioned as critical to conflict resolution in the county.

Assessment for Community Chartered Mediators

A total of 23% of the respondents indicated that there were people who can intervene on behalf of the community in conflicts resulting from mining operations in the county. These trained members include officers from NEMA, Natural Resources and Disaster Management, members from Sony Hurinet, and Nyamoka Citizen Voice Action. A majority of the respondents (67%) were of the view that there were no trained people while 10% were not aware of any trained members of the community who could intervene on behalf of the community on matters regarding extractive sector operations.

Among the groups recommended for training were CBO's under their umbrella body of Nyatike Community Reflection Networking, artisanal miners, chiefs, assistant chiefs, community elders, women groups, mining committees, youth leaders, and community social workers.

Areas of training to enhance community participation in extractive industry

As illustrated in Figure 42 below, a majority (40%) of the respondents pointed out that awareness creation on community participation was a key area of training for the chartered mediators while 25% mentioned conflict management and resolution as a critical area.



Figure 42: Key areas of training for chartered mediators in Migori County

Source: Research findings

Advocacy on environmental protection was emphasized by 20% of the respondents whereas 10% settled on awareness creation on benefit sharing. Others (5%) proposed financial literacy for the mine workers, training on HIV/AIDS, leadership training for teen girls, and training on the importance of education as areas of concern when training the chartered mediators.

Policy recommendations

The national government should:

- Allocate permits and licences of operations for private mines and artisanal miners and issue title deeds to land owners.
- Assist the artisanal miners in getting direct markets for gold to shield them from exploitation by intermediaries.

County government should:

• Cooperate and collaborate with the national government and other stakeholders such as NEMA in the implementation of the Mining Act.

Extractive companies needs to:

- Provide protective gear to workers to minimize the detrimental health effects caused by toxic chemicals used in gold extraction.
- Ensure proper waste management and provide adequate sanitation facilities at the mining sites.
- Treat all workers equal irrespective of ethnicity and age. This will minimize ethnic tensions experienced at mining areas.

CSOs and FBOs needs to:

• Enlighten the community on their rights to participate in the extractive sector and advocate against social injustices.

Community needs to:

• Be educated on their rights to participate in the extractive sector, and on the importance of education and women empowerment.

Since Migori County exhibits rampant environmental impacts as a result of mining activities the following measures were recommended:

- Artisanal miners should be educated on the importance of using protective measures such as heavy duty industrial chemical gloves, air filters and dust masks in their activities. This will lead to reduced health effects as a result of careless handling of toxic chemicals during panning, and breathing contaminated vapour in gold processing.
- NEMA should not allow mining activities to be carried out by any company or individual without clear environmental safety measures.
- Mining companies and individuals should refill mine holes which continue to cause loss of human and animal lives.
- Mining companies and individuals should exercise proper waste management to prevent contaminating water sources. This will ensure that the local community gets clean water for domestic use and the harmful chemicals do not contaminate fish, which are a major source of food for the locals.

Conclusion

This study was conducted to assess the gaps in knowledge, policy, and advocacy in handling the challenges and opportunities of the extractive industries sector in Migori County. The gaps were studied particularly in relation to the role of the local populations, county and national government and civil society organizations. The research applied descriptive research design, but more specifically baseline survey, in order to highlight the key elements of knowledge and policy gaps in the extractive industry. The study used both qualitative and quantitative research methods. Literature review was conducted on the key issues of concern in the extractive industry.

The findings indicate knowledge gaps in county policies on extractive industry. Migori County has no extractive industry policy, yet some respondents were of the view that the county had a policy governing the sector. There is little community participation on issues regarding operations of extractive companies in the county such as environmental impact and CSR activities, yet they are the most affected. According to the findings, mining operations have had detrimental effects on the environment, animals, birds and health of people living within and working in mining sites.

The findings also indicated that the county had experienced more land conflicts in the region, ethnic tensions within the mining sites and rampant political interference in private mines. There are few members of the local community trained and empowered to resolve conflicts that arise as a result of operations of extractive companies in the county. This, therefore, necessitates training community mediators to address such conflicts. Other areas key for training include financial literacy for the mine workers, training on HIV AIDS, leadership training for teen girls, and training on the importance of education as areas of concern when training the chartered mediators.

REFERENCES

- Anyango Odhiambo Elizabeth, "Factors influencing sustainability of gold mining projects in Rongo Sub County, Migori County." Available at: http://erepository.uonbi.ac.ke/
- Department of Geology, University of Nairobi, "Safe gold mine development and mining methods in Migori county-Kenya." Available at: http://geology.uonbi.ac.ke/
- International POPs Elimination Network (IPEN), "International Mercury Treaty Enabling Activities Program (IMEAP)." Available at: http://ipen.org/sites/default/files/ documents/CEJAD%20IMEAP%20report%20final%20.pdf
- Konkwo, Dede E.J. "Harnessing tradotronic media potentials for conflict resolution in Nigeria's Niger Delta." Available at: https://www.researchgate.net/profile/Emmanuel_ Amoo2/publication/256216509_Home-based_female_sex_workers_and_exposure_ to_HIV_in_Suburb_of_cities_in_Nigeria_IJSSHR_-_Vol2_No4_4th_edition_2011/ links/0046352206da8705eb000000/Home-based-female-sex-workers-and-exposure-to-HIV-in-Suburb-of-cities-in-Nigeria-IJSSHR-Vol2-No4-4th-edition-2011.pdf#page=52
- Migori County, "First county integrated development plan 2013-2017." Available at: https://cog.go.ke/images/stories/CIDPs/Migori.pdf
- Migori county, HIV & AIDS Strategic Plan (2015/2016–2018/2019) "Towards Ending the HIV Epidemic in Migori County." Available at http://nacc.or.ke/?mdocs-file=3775&mdocs-url=false
- Motano Malachi "Students abandon school for gold mines in Migori." Available at: http://reject.awcfs.org/article/students-abandon-school-for-gold-mines-in-migori/
- Mwango, Odhiambo Kelvin "Impact of open pit artisanal gold mining a case study of Rongo constituency." Available at: http://ir-library.ku.ac.ke/bitstream/ handle/123456789/12902/Impact%20of%20open%20pit%20artisanal%20gold%20 mining....pdf;sequence=1
- Nafziger Wayne, E. & Auvinen Juha, *Economic development, inequality, war, and state violence*, 2001. Available at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.667.7500&rep=rep1&type=pdf
- Ogola, Jason S., Mitullah, Winnie V., And Omulo, Monica A. "Impact of gold mining on the environment and human health: A case study in the Migori gold belt, Kenya." Available at: https://unites.uqam.ca/gmf/globalmercuryforum/files/articles/africa/ogola_2002.pdf
- Pettigrew, Thomas F. "Relative Deprivation and Intergroup Prejudice." Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1540-4560.2008.00567.x/pdf