

**MAY 2016**



# **ASSESSMENT OF THE STATUS OF EXTRACTIVE SECTOR IN FEDERAL SOMALIA**

**TOWARDS  
DEVELOPMENT OF  
INTEGRATED  
GUIDING  
FRAMEWORK**

**AUTHORS**

- DR. THUITA THENYA**
- OMAR ABDI**
- WINNIE WANJIKU**

# TABLE OF CONTENTS

1. Table of Contents .....	2
2. Acknowledgement .....	
Executive summary .....	5
3. INTRODUCTION AND BACKGROUND .....	7
3.1. Rationale .....	9
3.2. Objective .....	10
3.3. Specific Objectives. ....	11
3.4. Significance of the study .....	10
4. Methodology .....	12
4.1. Strategic approach .....	12
4.2. Planning .....	12
4.3. Study Coverage .....	12
4.4. Literature Review .....	12
4.5. Primary data .....	12
4.6. Data analysis .....	14
5. Findings -Thematic Analysis .....	14
5.1. Theory of Change .....	14
5.2. Regional status-East Africa .....	15
5.3. Geological Characteristics of Somalia .....	15
5.4. Political Development in Somalia .....	16
5.5. Extractive Resources characteristics and Dynamics .	16
5.6. Status of Extractive Industry in Somalia .....	17
5.7. Exploration .....	18
Resources Exploration Before 1990s	
Resources Exploration between 1990-2010	
Resources Exploration Post conflict 2011 to date	
6.0 Oil and Gas .....	20
Oil and Gas Before 1990s	
Oil and Gas 1990-2010	
Oil and Gas Post conflict 2011 to date	
Oil Wells Exploration	
6.2. Minerals Available and Extraction .....	26
Resources Extraction Before 1990s	
Resources Extraction 1990-2010	
Resources Extraction Post conflict 2011 to date	
Artisanal production	
6.3. Untapped potential and undiscovered resources	
6.4. Potential Targets for evaluation and production	
7. Challenges facing Extractive Sector .....	29
8. Economic Development .....	29
1990-2010	
Post conflict 2011 to date	
9. Social and Political Impacts .....	31
10. Extractive industry conflicts .....	33



# TABLE OF CONTENTS

11. Stakeholder analysis .....	34
12. Stakeholders Consultation .....	36
12.1. Extractive Minerals and exploration .....	37
12.2. Role of National and International Institutions ...	37
12.3. Legal Framework .....	37
12.4. Social benefits .....	38
12.5. Economic benefits .....	40
12.6. Conflict and Peace Building .....	40
12.7. Environmental management .....	40
12.8. Political issues .....	40
12.9. Challenges in Extractive Sector .....	41
13. Stakeholders Consultation .....	41
13.1. Stakeholders' characterization .....	41
13.2. Status of Extractive Industry .....	43
13.3. Location of the Minerals .....	43
13.4. Under exploited minerals .....	44
13.5. Main Market .....	45
13.6. Challenges Facing Exploitation .....	46
13.7. Areas Explored and Mapped .....	47
13.8. Role of National and International institutions..	48
13.9. Status of Legislative Framework .....	49
13.10. Provisions of the individual legal framework ...	50
13.11. Link between Conflict, Peace Building and Extractive	
Industries .....	51
13.12. Approach for implementation of the Extractive	
Sector .....	53
14. Legal framework .....	54
14.1. Institutional Framework .....	54
14.2. Provisional Constitution .....	54
14.3. Petroleum Law 2008 .....	55
14.4. Pre-1991 Concession Agreements .....	55
14.5. Production Sharing Contract .....	56
14.6. Legal Framework and challenges .....	57
14.7. Revenue and fiscal regimes .....	57
14.8. Approaches to address legal framework challenges	
14.9. Environmental Management .....	59
14.1. Conclusion .....	59
14. References .....	61

# ACKNOWLEDGEMENT

Foremost, the Taran Consulting expresses gratitude to all those who made it possible to complete this report. While it is impossible to mention all who contribute to our success, we wish to express our profound gratitude to the individuals, organizations and partners, as their assistance is vital and appreciated.

Taran Consulting has grown in size and influence from a tentative beginning to become a leading think-tank in Somalia, providing a platform for informed discussions to promote good scientific Research and Policy Analysis.

We wish to express our deep gratitude to the countless individuals for the useful comments, suggestions and information provided at various stages. They took time from their busy schedules as Key Informants and roundtable participants. Without their participation and feedback, this study would not have been possible.

Taran Consulting thankfully acknowledges the generous support from Henrich Boll Foundation for providing us with the funding and opportunity to conduct this research project and assisting us in dissemination of the research findings.



# EXECUTIVE SUMMARY

Somalia has a wide range of extractive minerals including uranium, coal, copper, gold, platinum, gypsum, iron ore, sepiolite and salt among others. Somalia's offshore territory also contains vast natural gas fields. However, information is scanty and conflicting. This is partly due to lack of stable central government in Somalia and with Somaliland and Puntland secession between 1991 and 2000, this resulted in loss of mineral and trade data. These minerals and metal resources remain largely unexplored and unexploited as a result of continued political and economic instability that has bedevilled the country since 1990s. Again, before the start of the war in 1990s there was a limited feasibility study. Several stakeholders are involved in the extractive industry in Somalia playing different roles. Some of these include Ministry of Petroleum and Mineral Resources (MPMR), Ministry of energy and minerals among others Civil society Organizations e.g. Somalia South-central non state actors, Geological society of National and International Non-Government Organizations including UNDP, World bank and UN Security Council (adopted 2007) among others.

Exploration of hydrocarbon started in Somalia during the colonial era when the British colony found large oil seepage in Dhagax Shabeel situated in northwestern Somalia. Hydrocarbon exploration relatively increased during the 1950s and 1960s when the majority of exploration/stratigraphic wells were drilled in different parts of the country. However, it has been sporadic and focused to some extent on crystalline basements from colonial period to the year 1960 to 1991. Some of the stakeholders involved in exploration include in Shell (Pecten), Conocophillips, Eni, Amoco, Texaco (ibid) and Total in 1980s. United Nations Development and World Bank in 1991 undertook a hydrocarbon analysis and found a favourable assessment to all countries bordering the Gulf of Aden and the Red Sea which includes Somalia.

Since 2010, oil, gas and minerals development has been high on the agenda of the Federal and Regional Governments in Somalia. A number of on-shore and offshore concession blocks have been leased to multi-national companies for oil and gas exploration. This has taken place in spite of inherent weaknesses that include; unclear regulations, weak national capacities for negotiations, specific environmental safeguards, absence of social screening criteria and weak financial system. In addition, the concession licenses issued by National and Sub-national authorities since the civil war remain un-coordinated. However, improved political and security stability still continue to attract oil and extractive minerals exploration.

In terms of production small quantities of several minerals like gypsum, marine salt, and sepiolite (meerschaum) are exploited and the country has also ventured into the production of clays, sand and limestone but at small scale. In the past, British mined Tin commercially in Somalia before World War II, along the Coastline. Sea salt was also collected from several sites.



Also Tantalum and Tin deposits in Somalia were mined in the Mid 1970s by Technoexport Bulgaria in Dalan area. As the country politically stabilized extraction has picked up, for example in 2003, they extracted gypsum, which was estimated at 1,500 metric tons, marine salt at 1,000 metric tons, and sepiolite at 6 metric tons. Currently several challenges face the country extractive sector as a result of limited resources in line ministries. This includes; inadequate data as some is displaced and others lost (Strategic Plan 2016), insecurity, maritime boundary disputes, poor infrastructure and inadequate resources for exploration and mapping

Due to inadequate information and level of infrastructure development, there is a likelihood of risk that speculation due to lack of information on expected benefits and distribution could stall peace process. Again, inadequate supportive regulations and legislations, un-coordinated concession licenses and unclear sharing revenues approach between national and sub-national authorities are also major challenges. Certain companies in Somalia have entered into illegal investments contracts that endanger the state, community, potential investors and collaborating partners. These illegal deals are not recognized hence results to instability of the Somali's economy (Balthasar 2014). In addition, the institution lacks adequate capacity and oversight in the sector, and therefore, promotes the risks of corruption and deepens social division hence a key driver to conflict in the nation. At the local level conflict is stimulated by lack of communities and stakeholders involvement in the decision making regarding exploration of minerals. In 12th July, 2013 the UN Monitoring Group recommended in a letter that "Oil companies should cease and desist negotiations with Somali authorities. Continued negotiations under the current governance is likely to fuel risk on non-transparency practices and political disagreements that could exacerbate clan conflict and constitute threats to peace and security" (Confidential, 2013d).

According to the Strategic Plan 2016 of the Federal Republic of Somalia, the extractive industry development plays a critical role in economy recovery of the country. It supports the rebuilding of the country after the post-conflict thus improving the living standards of the Somalia citizens. At the same time the country is making some important strides in both legal and administrative sector with formulation of relevant bills among them;- Oil and gas revenue sharing bill: Oil and gas downstream bill: Reviewing the Petroleum Law 2008: The Petroleum Strategy: reviewing the Mining Code of 1984 with a view of drafting a new one. There is need or more legislation such as environmental management including use Environmental Impact Assessment in the sector. In conclusion we can project that the economic development potential in Somalia for the extractives industry could prove to be the greatest opportunity to build a sustainable, stable national economy. However, there is need to undertake strategic assessment of the different strategies, policy and legislation so as to develop mitigation measures that would ensure cultures of peace. Again, effective economic development based on extractive sector and conflict resolution of the country can be resolved by considering political dialogue of reconciliation. Other important consideration should be fair resources sharing, transparency and accountability. Overall, there is need to develop extractive sector strategy for Somalia as whole that would provide engagement framework for exploring and extraction companies.



# INTRODUCTION

Before the outbreak of civil war in Somalia, various international oil companies had made concerted exploration for oil and natural gas deposits in the territory. It was against this background that in October 1991, the World Bank and the UNDP announced the results of their hydrocarbon study in the countries bordering the Red Sea and the Gulf of Aden. The study indicated that the potential for oil and gas in northern Somalia was good. However, due to the internal strife that the country descended into, there was little neither progress nor follow-ups after the start of the civil war to determine the levels or ratios of exploitable oil and natural gas potential in the country.

Despite the foregoing, Kamenove and Petrove (2012) study have shown that mineral and metal resources available in Somalia include uranium as well as largely unexploited reserves of coal, copper, gold, platinum, gypsum, iron ore, sepiolite and salt. These mineral and metal resources remain largely unexploited as a result of the continued political and economic instability that has bedevilled the country for the last twenty three years. Although the minerals sector was not a significant economic mainstay of the Somali economy before the civil war, this was largely a result of untapped potential due to lack of feasibility studies prior to the 1991 report. In fact the untapped Somali mineral sector was not unique at the time as neighbouring countries such as Kenya and Uganda all of whom are now exploring oil and gas experienced the same, status, low information availability on these resources.

Against this background and owing to the persistent civil strife over the last 23 years the Somali mineral sector has largely remained dormant and unexploited. The foregoing notwithstanding, small quantities of gypsum, marine salt, and sepiolite (meerschaum) have been exploited previously, and the country has also ventured into the production of clays, sand and gravel, crushed and dimension stone as well as limestone but at small scale. Likewise a number of discoveries have also been made that include amethyst, aquamarine, emerald, garnet, opal, ruby and sapphires (Yager, 2001). All these developments and discoveries occurred at a time that the country was largely politically and economically unstable.

Arising from the aforementioned, we can project that the economic development potential in Somalia for the extractives industry could prove to be the greatest opportunity to build a sustainable, stable national economy. Again, if well nurtured this could provide a framework not only for sustainable development for future generations but also through spill provide incentives for a politically peaceful and secure Somalia where all cleavages share in the wealth of the nation-state. There is also the risk that speculation due to lack of information could stall peace process due to expected benefits.

This projection has replicas in the region including, Yemen, Ethiopia and other adjoining countries. The underlying potential in minerals is likely to be further harnessed by the deep-water exploration that Somalia is capable of launching owing to its close proximity to the Indian Ocean and longest coastline in Africa. This in turn has the potential of attracting increased international investment, creation of jobs, development of infrastructure and increased trade opportunities as well as foreign exchange earnings for the country.

However, although this potential is apparent and real, there are a number of fundamental administrative and legal and regulatory steps that need to be addressed if this golden opportunity is to be realized and not left in abeyance. Lessons from other post conflict countries, show that for this venture to roll off and remain sustainable, social accountability measures need to be integrated into the governance of the extractive industry so as to help alleviate the potential for violent conflict over the bounties that are likely to accrue from the untapped mineral resources

To this end the politics of inclusive development must be enshrined in the constitutional and administrative dispensation through a foundational framework that assures all cleavages of equitable distribution of the resources and benefits as well as the facilitation and building of trust on the state and government apparatus as the guarantors and protectors of individual and group rights both economically and politically.

This is essential because since 2010, oil, gas and minerals development has been high on the agenda of the Federal and Regional Governments in Somalia. A number of on-shore and offshore concession blocks have been leased to multi-national companies for oil and gas exploration. However, these sectors have inherent weaknesses that include; first, absence of clear regulations pertaining to investment and mineral rights, second-weak national capacities for negotiations, third-absence of sector specific environmental safeguards, fourth-absence of social screening criteria and fifth-weak financial system that lack stringent auditing and accounting systems that will ensure that revenues generated from the exploitation of natural resources are put to the envisage proper usage for posterity.

In summary it should be noted that Africa is replete with both success and failed stories of mineral resource exploitation. The successful exploitation of mineral resources in Africa can either be a 'blessing' or a 'curse'. Luckily for Somalia it is poised to start the exploitation of the extractive industry with the benefit of hindsight as it has both best and bad practices to draw lessons from the benefit and to the advantage of its future generations. This is an irreducible minimum for the state and government in place.



## 3.1 RATIONALE

Extractive minerals provide great potential for countries wealth. While some significant exploitation is ongoing in Africa in countries like Nigeria with oil and copper in Zambia with South Africa having long history of gold exploitation, there is still substantial unexplored resources and limited available information on these extractive resources. For example, there is little experience, expertise, knowledge, dialogue and public information on the extractive sector in Somalia among the Somalis. In a nutshell there is a knowledge gap between the Somali government and the populace on the “state of the art” in the extractive sector. Largely unexploited reserves of, coal, copper, gold, platinum, gypsum, iron ore, sepiolite and salt exist in Somalia with small quantities of gypsum, marine salt, and sepiolite (meerschaum) have been exploited previously.

Arising from the above it can be surmised that the potential of the extractive sector presents both an opportunity as well as challenges for the rebirth of the Somalia State both politically and economically. On the opportunity front- the exploration and utilization of the extractive industry offers Somalia a lifeline to utilize its resources to create jobs, rebuild the dilapidated infrastructure, deliver basic services, achieve political stability, and streamline the legal, regulatory and administrative framework that governs all private and public initiatives so as to enhance inclusive development that benefits both the state and the totality of its citizenry in equal measure.

On the contrary, the massive revenue potential from the Somalia extractive sector places the country at risk of renewed conflict along cleavage lines. The potential conflict is premised on the struggle for the control of mineral resources. The risk is multifaceted and can arise from first - poor management of the resources, Second- lack of transparency in the sharing of resources and proceeds from the same and third-conflict between ruling elites and local communities domiciled in the mineral resource areas over proceeds distribution. While the potential would be a blessing, the risks are akin to the ‘resource curse’, where abundance resources instead of being used to lead the country to prosperity become the vineyard that fuels political chaos, social conflicts, environmental degradations, widespread rural poverty, insecurity and the rise of instability.

Successive Somali states have unveiled regulations, laws and the constitutional framework for the governance of the extractive sector. These include the mining code of 1984, the Petroleum law of 2008, and the federal constitution of 2012. Together the three form the foundation of the governing laws in the extractive industry in Somalia. But as already noted most of the Somali population is either ignorant or unaware of how such laws and the attendant policies and regulations in this volatile sector will affect their well being in the future. Governance of the sector without a baseline study that can act as a bridge for pulling the country together is likely to open yet another fault line that can further lead to instability arising from resource conflict when the same resource can be utilized to stabilize the country.



## 3.2 OBJECTIVES

Extractive minerals provide great potential for countries wealth. While some significant exploitation is ongoing in Africa in countries like Nigeria with oil and copper in Zambia with South Africa having long history of gold exploitation, there is still substantial unexplored resources and limited available information on these extractive resources. For example, there is little experience, expertise, knowledge, dialogue and public information on the extractive sector in Somalia among the Somalis. In a nutshell there is a knowledge gap between the Somali government and the populace on the “state of the art” in the extractive sector. Largely unexploited reserves of, coal, copper, gold, platinum, gypsum, iron ore, sepiolite and salt exist in Somalia with small quantities of gypsum, marine salt, and sepiolite (meerschaum) have been exploited previously.

Arising from the above it can be surmised that the potential of the extractive sector presents both an opportunity as well as challenges for the rebirth of the Somalia State both politically and economically. On the opportunity front- the exploration and utilization of the extractive industry offers Somalia a lifeline to utilize its resources to create jobs, rebuild the dilapidated infrastructure, deliver basic services, achieve political stability, and streamline the legal, regulatory and administrative framework that governs all private and public initiatives so as to enhance inclusive development that benefits both the state and the totality of its citizenry in equal measure.

On the contrary, the massive revenue potential from the Somalia extractive sector places the country at risk of renewed conflict along cleavage lines. The potential conflict is premised on the struggle for the control of mineral resources. The risk is multifaceted and can arise from first - poor management of the resources, Second- lack of transparency in the sharing of resources and proceeds from the same and third-conflict between ruling elites and local communities domiciled in the mineral resource areas over proceeds distribution. While the potential would be a blessing, the risks are akin to the ‘resource curse’, where abundance resources instead of being used to lead the country to prosperity become the vineyard that fuels political chaos, social conflicts, environmental degradations, widespread rural poverty, insecurity and the rise of instability.

Successive Somali states have unveiled regulations, laws and the constitutional framework for the governance of the extractive sector. These include the mining code of 1984, the Petroleum law of 2008, and the federal constitution of 2012. Together the three form the foundation of the governing laws in the extractive industry in Somalia. But as already noted most of the Somali population is either ignorant or unaware of how such laws and the attendant policies and regulations in this volatile sector will affect their well being in the future. Governance of the sector without a baseline study that can act as a bridge for pulling the country together is likely to open yet another fault line that can further lead to instability arising from resource conflict when the same resource can be utilized to stabilize the country.



The overall aim of the study is to conduct a baseline study of the extractive sector in Somalia in order to determine the risks and opportunities based on the documented resources, knowledge and legal framework.

### 3.3 SPECIFIC OBJECTIVES.

- Assess the status of extractive industry in Somalia including documentation of available resources
- Examine the role of national and international institutions/stakeholders in the extractive sector
- Review the status of legislative framework that govern extractive sector in Somalia and their impacts
- Identify the link between conflict, peace building and extractive industries in Somalia To formulate appropriate approach for implementation of the extractive sector.

### 3.4 SIGNIFICANCE OF THE STUDY

The research will directly contribute to the spirit of “Somali led- Somali owned” This study will tackle issues relating to the extractives sector from a perspective that entails, transparency and accountability, participation of the public, equity and equality, security, peace-building, and conflict management. The research examines how the state can be reconstituted through economic empowerment programs, particularly for the conflict driving youth through the efficient use of extractive resources. The research shall also examine the extent to which the legal and policy institutional designs can promote peace-building efforts in Somalia. Most conflicts are related to resources whether local or international and good planning ensure reduced conflicts.

# 4. METHODOLOGY

## 4.1 STRATEGIC PLAN

The study employed diverse approaches to ensure inclusive and comprehensive data collection and analysis.

## 4.2 PLANNING

To ensure effective planning, initial planning meeting were held between relevant stakeholder and the study team. These consultations also included scientist, government officials and development patterns. This allowed fine tuning of the methodology and planning for consultations in the field. Sources of information were identified at this stage. Project indicators and time frame is provided in Appendix 1 and 2).

## 4.3 STUDY COVERAGE

Data collection took place in selected areas covering Mogadishu, Garawe, Hargeisa, Kismayo, Adado, and Baidowa. This targeted a combination of stakeholders including business with interest in extractive industry, academia, governments departments and local organisations among other identified stakeholders.

## 4.4 LITERATURE REVIEW

Vast information related to mining exists and this information was reviewed along defined thematic areas. The review was important as it allowed development of appropriate tools, which were used in field data collection. Coverage included review and assessment of the existing legal, policy and institutional frameworks. In this phase, vast majority of academic literature also be reviewed to determine the theoretical foundations for appropriate legal, policy and institutional frameworks governing the extractives sector and resources available based on secondary data. This allowed identification of various actors within Somalia extractive industry.

## 4.5 PRIMARY DATA

This involved collection of data from the field involving three different approaches.



## QUESTIONNAIRE SURVEY

A structured questionnaire was used in data collection. The questionnaire was coded and uploaded into a dedicated mobile platform kMACHO that allowed data collection using smart phones (appendix 3). The identified smart phone, android operating system, version 4 and above was installed with kMACHO application for data collection. Use of mobile application allowed for geo-referencing and image capture while creating a data collection database. Potential respondents were selected from among government departments, civil society and development patterns among other identified stakeholders.

## KEY INFORMANT INTERVIEWS

This involved a guided discussion using a check list. A checklist to guide the interview was generated to allow comparability of information (appendix 4). The aim of KII was gather useful information on potential direction of extractive industry both in terms of geopolitical position, national development and economic development. The informant were purposively selected targeting various categories of stakeholders both at the national and county level. These included ministry of petroleum at federal level, directorates at state level, second category at artisanal communities, third professional groupings like Geological societies, legal sector, fourth academic institutions, and 5th civil societies as most appropriate as gave the study an advantage in selecting respondents who are familiar with the subject of inquiry, while also allowing for representation of the various groups with interests in policy formulation in the country.

## FOCUS GROUP DISCUSSION

While the questionnaire survey and KII involved individual respondents, one way of triangulating information that was being generated was to hold focussed meeting with selected individuals from different sectors between 10-15 people. A checklist of issues to be discussed were pre-selected before (appendix 4). The meetings were held in each of the six study areas that is Mogadishu, Garawe, Hargeisa, Kismayo, Adado, and Baidowa. Potential respondents were selected from among government departments, civil society and development patterns among other identified stakeholders so as to provide key opinions and insight in extractive industry

## RESEARCH ASSISTANTS

To allow timely data collection, one enumerator was recruited from each region in Somalia paying attention to academic training, ability to operate a mobile phone and having access to android phone version 4 and above. During FGD one RA was recruited to assist in taking notes. In addition there was one RA in Kenya to assist in analysis of literature review working under the guidance of the lead consultant. All the enumerators were trained on data gathering, interview schedule and use of kMACHO mobile applicationPage 013

## 4.6 DATA ANALYSIS

This involved initially coding and cleaning the data from questionnaire survey by downloading from the KMACHO web portal. Quantitative data was entered into SPSS and analysis done using descriptive statistics. While qualitative data was analysed along thematic area.

## 5. FINDINGS -THEMATIC ANALYSIS

This section focuses on political development in Somalia, documented resources, management and legal framework. It highlights useful information on past activities, challenges and possible areas of success and peace building.

### 5.1 THEORY OF CHANGE

Community development aimed at bring change are often ambitious goals, and so planning specific on-the-ground strategies to those goals is difficult. Likewise, the task of planning and carrying out evaluation research that can inform practice and surface broader lessons for the field in general is a challenge. Thus, by developing a theory of change, decision makers can be better assured that their programmes are delivering the right activities for the desired outcomes. And by creating a theory of change programmes are easier to sustain, bring to scale, and evaluate, since each step - from the ideas behind it, to the outcomes it hopes to provide, to the resources needed - are clearly defined within the theory. Within this wider framework logic or outcomes models are very closely related, often being used to take a more narrowly practical look at the relationship between inputs and results. In this study the consultative process assumed that the stakeholders would provide information out of interest and desire to change the sector. Information was obtained through consultation with key informant interviews and questionnaire survey. The outcome of this process is a report that captures the information from the sector including perceived path of change. It is hoped that the information gathered can lead to discussion on sustainable extractive sector that is characterized by good governance.



## 5.2 REGIONAL STATUS-EAST AFRICA

Increasing oil demand trends, which has led to rise in prices, has influenced oil companies to venture into frontier regions. East Africa is one of these frontier regions which have experienced a resource bonanza (Balthasar 2014). In the North-Western Turkana in Kenya region, London-based Tullow Oil found commercially viable oil in 2012, while huge natural gas was discovered in Tanzania and gas fields in the coast of Mozambique by UK-based Company. In Uganda, fields of hydrocarbons have been identified across the region. (Shepherd 2013). As a result of Somalia being in the frontier exploration phase, it is underexplored relative to the country promising potential hydrocarbon basin. It has remained over a long time in the frontier exploration phase due to political instability, lack of attractive business environment that could encourage international companies willing to venture in to the exploration sector and lack of technological advancement in deep sea drilling. (Hussein, 2016).

## 5.3 GEOLOGICAL CHARACTERISTICS OF SOMALIA

About 90% of Somalia, has sedimentary rocks that are primary elements for assessing hydrocarbon potential. The geological formation as a result of tectonic activities, over millions of years, subjected Somalia territory to geological cycles that led to formation of Sedimentary basins both onshore and off shore through rifting, uplifts and depressions. The sedimentary basins includes; Guban, Darror-Nugal, Central/Mudug, Qorioley (Coriole), Luuq-Mandheera and Jubba-Lamu basin.

The young volcanic intrusion also covers Somalia in parts of Gedo, Bakool, West Hiiraan and Awdal. The young basalts-liparitic volcanic are exposed in small narrow areas. Mesozoic to recent sediments make up most of the exposed rocks of Somalia. Two isolated uplift Neoproterozoic occurs in west of Mogadishu in Bur region (BurMassif) and northern Somalia from Borame, across Hargeisa, Sheikh, Erigabo to Ras Aseyr through Puntland. It's parallel to the Gulf of Aden. Bur Massif consists of amphibolites, quartzites, gneisses, and marbles, intruded by granites which is part of Mozambique Belt of the Neo-proterozoic. The northern area without cropping crystalline rocks, including the Darkainle alkaline complex, is part of a nearly Paleozoic fold belt.

The Northern crystalline basement and Bur Massif, used to be Neoproterozoic part of the Gondwana, the super-continent that rifted, broke apart and drifted to carry India, Antarctica, Madagascar, and Australia far from Somalia (Africa). The Neoproterozoic of India, Antarctica, Tanzania, India, Antarctica and Somalia are likely to have some comparable characteristics.



Most of the Horn Africa is covered by carbonate, clastic, and evaporate sedimentary rocks of Mesozoic and cenozoic age that were deposited on the east African passive margin. Most section is made up of shallow water marine limestone and dolomite and quartzes near shore sandstones on Middle and Upper Jurassic, Cretaceous, early tertiary age, which change eastward to deeper water argillaceous carbonate, fine sandstone and shale in the deeper part of Somali Basin. Gypsum present in parts of Western shelf. The Coarse clastic rocks of Permian-Triassic, carboniferous, and early Jurassic age are present in the Karoo facies of South eastern and eastern Africa, which extend north ward into Kenya and possibly southern Ethiopia and southwest Somalia. In the subsurface of the African coastal basins bordering the Indian ocean north of Madagascar, the Karoo continental coarse clastic facies is interbedded with marine fine clastic rocks and evaporates, including salt of Permian-Triassic age. The evaporate beds may extend north as far as the Manderu in Kenya and South western of Somalia.

## **5.4 POLITICAL DEVELOPMENT IN SOMALIA**

Somalia gained independence in 1960 but entered into conflict starting from 1991. Somalia has been engulfed by anarchy without a central authority since the then President Said Barre was overthrown in 1991. Owing to more than two decades of conflict, it is estimated that 15% of the former Somalia population now lives in exile, while many more are internally displaced. In addition, owing to this state of governance, the country has been characterized by competition for scarce resources, power, state fragility, and environmental degradation, lack of social cohesion, organized armed groups and proliferation of violence.

In 2012 there was a positive development when the Federal Government of Somalia (FGS) was elected into office replacing the Transitional Federal Government (TFG) that was established in 2004 (Mbugua, 2013). Although there are marked improvements in security and infrastructure development due to the efforts of FGS, the security situation is far from settled

## **5.5 EXTRACTIVE RESOURCES CHARACTERISTICS AND DYNAMICS**

Despite the depressing picture portrayed by Somalia's conflict ravaged characteristics, social and political opportunities exist in Somalia that if positively exploited can significantly contribute to political stability. Owuor (2014) has for example linked investments to stability in countries ravaged by conflict and underdevelopment (Sub-Saharan). One of the key sectors where he argues the potential lies is in the extractive industries. Extractive industries involve the exploitation of high-value natural resources that include oil, gas, minerals and timber. According to Adam Smith International (2014), medium and long term economic development potential of the extractive industries in Somalia could be greater than any other sector in Somalia's national economy. In a national statement issued during Federal Government of Somalia US-Africa Summit in June 2014, the Somalia president Hassan highlighted extractive industry as a priority among their future plans and where work has already commenced. The president pointed out the need to establish extractive industry management practices that exploit Somalia's natural resources in the interest of all Somalis (Federal Government of Somalia US-Africa Summit National Statement, 2014).



At the same time, exploitation of high-value natural resources could lead to conflict complement stabilization efforts in Somalia. As noted by the United Nations and European Union (2012), exploitation of high-value natural resources has often been a key factor in triggering, escalating or sustaining violent conflicts around the globe. However, these resources can be the much-needed catalyst for stability as investments have also been seen to complement stabilization efforts (Owuor, 2014).

Despite the foregoing, the relationship between extractive industries and development remains contested. While some see minerals as having potential to make critical contributions to development and modernization, a more skeptical group sees it as a 'resource curse'. Proponents of resource-curse theory have shown that extractive industries exploitation of natural resource endowment reduces economic growth. They have argued that resource-rich countries are empirically more likely to perform poorly in economic terms than other countries (Ross, 2004). Examples of empirical experiences such as Peru, Bolivia, and Zambia among other countries have been cited to demonstrate instances when mineral rich economies have performed poorly compared to those with less or no minerals. However, opponents of the resource-curse theory also point out to historical experiences of countries such as Canada, Australia and the United Kingdom to argue that extractive industries can play a vital and positive role in a country's development (Auty, 2001). The above summation suggests that the success or failure of the extractive industry in spurring development is a function of the degree to which good governance practices are inculcated into the management of a given countries extractive sector.

## 5.6 STATUS OF EXTRACTIVE INDUSTRY IN SOMALIA

Analysis of information from available documents indicate that there is significant information available though with major gaps, which necessitates as need for continued effort in consolidating available information. Somalia has a vast wealth of mineral resources that have not been adequately explored to their full capacity; however, the resources have not been surveyed and mapped (Yegar, 2011). Since the pre-colonial era, Somalia has been and will be a spectacular nation that business persons can venture into. Currently the demand for minerals from Somalia has been on the increase. This shows that there is a beneficial development in Somalia through exploration investment. Drastic demand increase is influencing new business persons to venture in extraction sector; in order to meet the increased demand. Somalia being one of the developing nations that is not adequately explored is ready to reveal oil, gold, gemstones, uranium, rare earth metals, manganese, tin, iron and copper that it secretly hold. According to the Strategic Plan 2016 of the Federal Republic of Somalia, the extractive industry development plays a critical role in economy recovery of the country. It supports the rebuilding of the country after the post-conflict thus improving the living standards of the Somalia citizens.

## 5.7 EXPLORATION

Hydrocarbon exploration started in Somalia during the colonial era when the British colony found large oil seepage in Dhagax Shabeel situated in northwestern Somalia. Hydrocarbon exploration relatively increased during the 1950s and 1960s when the majority of exploration/stratigraphic wells were drilled in different parts of the country. Exploration of Minerals in Somalia was sporadic and focused to some extent on crystalline basements from colonial period to the year 1960 to 1991. The crystalline basements includes that of West of Mogadishu, Bur Massif and Northern crystalline basements that is parallel to Gulf of Aden. Certain geological survey funded by the UNDP and some donor countries, was carried out by the geological survey from the Ministry of Minerals and Petroleum. The Department of Geology of Somali National University or the Russian were involved in other survey. The survey carried out assisted mainly in identifying some valuable deposits of minerals although the minerals were not developed for purpose of export and production. In 1988, a small percentage of the GDP in the mineral sector was attained. If surveyed and developed, the mineral sector can help to meet the demands of its public services.

The frontier regions are either unexplored due to political instability, unfriendly business environment, geographical remoteness (difficult terrain, deep sea and etc.) and technological barriers. Hydrocarbon Exploration phase in late 1980s was spearheaded by Shell (Pecten), Conocophillips, Eni, Amoco, Texaco (ibid) and Total. However, the Somali minerals sector before overthrow of the government in 1991 failed to expand following political and economic instability.

## RESOURCES EXPLORATION BEFORE 1990S

In early 1950s during the colonial period oil seeps were first identified by Italians and the British Geologists (Balthasar 2014). The Italy –based Agip (Eni) and US-based Sinclair Oil Corporation begun geological study that was meant to assist in identifying the minerals levels available in Somalia. Somali's resources exploration happened at irregular intervals from the colonial times to the period of 1960-1961. According to Balthasar (2014), the exploration focused on crystalline basement rocks in the extreme northern part that is parallel to the Gulf of Aden, West of Mogadishu and Bur Massif. This survey was conducted by geologists from the Ministry of Minerals and Petroleum and donors and other surveys conducted by The Department of Geology in Somalia. The valuable mineral deposits were identified through the survey, though during this period there were no intention of production and export.



## RESOURCES EXPLORATION BETWEEN 1990-2010

Hydrocarbon exploration started in Somalia during the colonial era when the British colony found large oil seepage in Dhagax Shabeel situated in northwestern Somalia. Hydrocarbon exploration relatively increased during the 1950s and 1960s when the majority of exploration/stratigraphic wells were drilled in different parts of the country. Exploration of Minerals in Somalia was sporadic and focused to some extent on crystalline basements from colonial period to the year 1960 to 1991. The crystalline basements includes that of West of Mogadishu, Bur Massif and Northern crystalline basements that is parallel to Gulf of Aden. Certain geological survey funded by the UNDP and some donor countries, was carried out by the geological survey from the Ministry of Minerals and Petroleum. The Department of Geology of Somali National University or the Russian were involved in other survey. The survey carried out assisted mainly in identifying some valuable deposits of minerals although the minerals were not developed for purpose of export and production. In 1988, a small percentage of the GDP in the mineral sector was attained. If surveyed and developed, the mineral sector can help to meet the demands of its public services.

The frontier regions are either unexplored due to political instability, unfriendly business environment, geographical remoteness (difficult terrain, deep sea and etc.) and technological barriers. Hydrocarbon Exploration phase in late 1980s was spearheaded by Shell (Pecten), Conocophillips, Eni, Amoco, Texaco (ibid) and Total. However, the Somali minerals sector before overthrow of the government in 1991 failed to expand following political and economic instability.

## RESOURCES EXPLORATION BEFORE 1990S

United Nations Development and World Bank in 1991 undertook a hydrocarbon analysis and found a favourable assessment to all countries bordering the Gulf of Aden and the Red Sea of Somalia. The assessment showed potential hydrocarbons prospects in the region. Although with the high expectations of hydrocarbons in Somalia along this region, most remain underexplored. These natural resources included; Oil reserves, uranium, iron ore, salt, natural gas, bauxite, coal, copper, gypsum, tin, and phosphate. Local geologists suggest presence of these valuable minerals. As of 1992, few mineral resources were located and their extraction played a minor role in the economy. Before the collapse of the central government, there were few petroleum companies such as Conoco and Shell that was involved in petroleum survey.

Overthrow of the Mohamed Siyad Barre in 1991 led to the civil war and geological surveys operations were affected and they could not proceed. In 1992 and 1993, US-led and UN intervened to bring political stability to the country but it failed. The internal conflict in the country during this civil war affected further progress to follow-ups that could be conducted to determine levels of exploitable resources potential in the country.



The country lacked central government from 1991 to 2000. As a result of secession of Somaliland and Puntland, mineral and trade data was not reported hence no data available for reference (World Bank Group 2014). The civil war between these periods forced the closure of Somalia's Oil refinery and cements plant, and stopped the exploration for natural gas and other resources. No official exploitation has been recorded in Somaliland. In addition, there are small scale black market businesses in some areas of Somaliland. Somaliland commissioned in different times mineral related companies to make survey or make excavation among which include Chinese company at SIIMOODI village in Borame. This company has not yet presented any successfully mineral excavations.

## RESOURCES EXPLORATION BEFORE 1990S

Somalia's hydrocarbons endowment is attractive based on the large profit margins. But the issue is whether Somalia will significantly and sustainably stabilize with regards to its security, political, and legal landscape in the short and medium term in order to allow for commercial oil production. Following the end of transition period according to World Bank Group 2014, uncoordinated petroleum activities and uncertainty Petroleum legal framework still continue. The concession licenses issued by National and Sub-national authorities since the civil war remain un-coordinated. It is expected that Somalia's offshore territory also contains vast natural gas fields and is determined to join the race for hydrocarbon production. In 2012, The Federal Government of Somalia announced the issue of auctioning some of its newly delineated oil blocks deposits during the course of 2013. Improved political and security stability attracted and still continue to attract oil producers in Somalia.

### 6.1 OIL AND GAS

Oil is the third global energy consumption and remains the most strategic resources in the international politics and global economy (BP 2012). Universally, petroleum demand has increased in recent years and it is forecast to grow even stronger in the future. At the same, there is greater concern on increasing global scarcity that are on rise, contributed by a combination of shrinking oil reserves, demand increase by industrial powers and emerging economies, as well as population increase globally.

Somalia's hydrocarbon sector potential remains high despite the fact that it's vastly underexplored both onshore and offshore basins, which are considered to have huge volumes of undiscovered oil and gas resources. Most exploration is confined in the Somalia's northern territories due to large security considerations and the fact that there are proven oil reserves by petroleum geologists in Nugaal and Dharoor blocks in the Republic of Somaliland, which is unrecognized internationally declared independence from Somalia in 1991. Somaliland has entered to various exploration agreements with oil companies for instance Berbera Production Sharing Agreement (Mallory 2013).



The activities of oil and gas exploration in the country did not find commercial quantities of oil and gas, but the exploration data established that the country's sedimentary basins have working oil and gas producing geological system. The only thing holding Somalia back from exploiting its significant oil and gas resources are the political barriers, insecurity and technological advancement it faces. The barriers need to be addressed and so that to make the country an appealing and effective place for foreign investment from major International Oil and Gas Companies (A.Hussein, January, 2016).

## **OIL AND GAS BEFORE 1990S**

Exploration of Oil started in the 1980s. In 1986s the international oil companies took exploration licences, the rights of exploration were allocated by the Barre regime to the US Oil companies including Chevron, Amoco, Conoco and Phillips. In order for Somalia's to meet their needs on oil exploration, they relied heavily on foreign donors for instance the Soviet Union and then the Saudia Arabia. Late 1970s, Somalia built a refinery at Jasiira in the Northeast of Baraawe with the support from Iraq. The oil refinery had a capacity of 10,000 barrels per day but it broke down in 1980 when Iran-Iraq war started. The oil production was affected as all deliveries were suspended. Again the Somalia went back to the state of importing the oil. Oil and natural gas deposits in Somalia were explored by international companies all through the 1980s.

## **OIL AND GAS 1990-2010**

The World Bank carried out the geological survey in 1990s, of the Somalia's oil prospects. The results showed potential oil and gas in the countries that borders Red Sea and Gulf of Aden. Nogal 1 and Kalis 1 wells were discovered and drilled during this time as they showed oil potential. The exploration of these two wells did not reach the main exploration target, since in the early 1990s civil unrest in the country emerged following the fall of Siyad Barre. This led to the withdrawal and cancellation of the exploration contracts by the oil companies operating in the country during that time. The oil companies that were affected includes Chevron, Agip, Amoco and Conoco.

There is evidence of the presence of oil and gas in Somalia, the Transitional government installed in 2000 and the two separate Republics have signed different exploration agreement with oil companies though the exploration are likely to be difficult and expensive for the foreseeable future. The oil refinery at Mogadishu has been out of operation since 1991 following political instability and conflict.

## OIL AND GAS POST CONFLICT 2011 TO DATE

As every developing country and particularly countries from post-conflict reconstruction Somalia is igniting great interest particularly in oil and gas sector. Several explorations by companies from developed world have been undertaken generating huge amount of information that is useful for oil and gas debate in the country. For example, the Soma Oil and Gas has completed seismic survey of a portion of the Indian Ocean: Soma Oil and Gas contracted Seabird Exploration to execute 2-D seismic survey of a large portion of the Indian Ocean, which has been completed. This includes geological information on possible deposit sites, oil and gas blocks. It is also notable the Ministry of Petroleum and Mineral Resources is striving to revive and reinvigorate the oil and gas industry of Somalia in the best sustainable manner as noted in the recent (2014) Somali Oil Conference in London. The Ministry is also carrying out discussions with international companies that left at the start of conflict in 1990 on case by case basis. Some companies have gone ahead to explore ways of securing of contract with the current government. It should be noted that the governance structure of the post-conflict Somalia is still weak and it is doubtful if there is adequate mechanism to secure the country interest particularly the large community potential benefit from minerals like oil and gas. However, the country is at the same time making some important strides in both legal and administrative sector with formulation of relevant bills among them:-

Oil and gas revenue sharing bill: The federal government (FG) has completed drafting of the bill and has been in consultation with the emerging Federal Member States.

Oil and gas downstream bill: The Federal Government (FG) has completed drafting the bill and now going to the process of consultations with the emerging Federal Member States and business community.

Reviewing the Petroleum Law 2008: The reviewing process started in mid -November 2014 undertaken by the Somalia legal department, supported by the Legal Advisory Team assembled by Deloitte as a contractor for the US Government. The World Bank is also funding and assisting in some strands of this legal work. The Petroleum Law should address adequately the possibility of gas discovery; it should have provisions that make Somalia's fiscal and tax regimes very competitive and attractive. It will be a law that benefits the Somali people and protects the interests of our partners and investors.

Reviewing the Provisional Constitution of the Federal Government of Somalia: Some of the major focus of the review process has been the issues of Jurisdiction, control and revenue sharing between the Federal Government and the emerging Federal Member States and also the issue of awarding of oil blocks.



The Petroleum Strategy: This document was completed in March 2014.  
Policy Framework: This document was completed in April 2014.  
Extending the Strategic plan of 2014 to 2016 and possibly to 2020: The Planning Department of the Ministry is working on the extension of the plan, first to 2016 and then to 2020. UNDP is assisting the Planning Department to work on the Strategic Plan 2020 of the Ministry.

Reviewing the Mining Code of 1984 and possibly drafting a new one: This work is in its initial stage of development. Addressing and setting limits of sea ownership between the Federal Government and the Federal Member States: A law will be developed and introduced that delimits how far into the sea a certain Federal Member State has jurisdiction over. For example, in the US, the limits are the first 3 miles is the State's; followed by 5 miles of joint ownership and the rest being under the jurisdiction of the Federal Government.

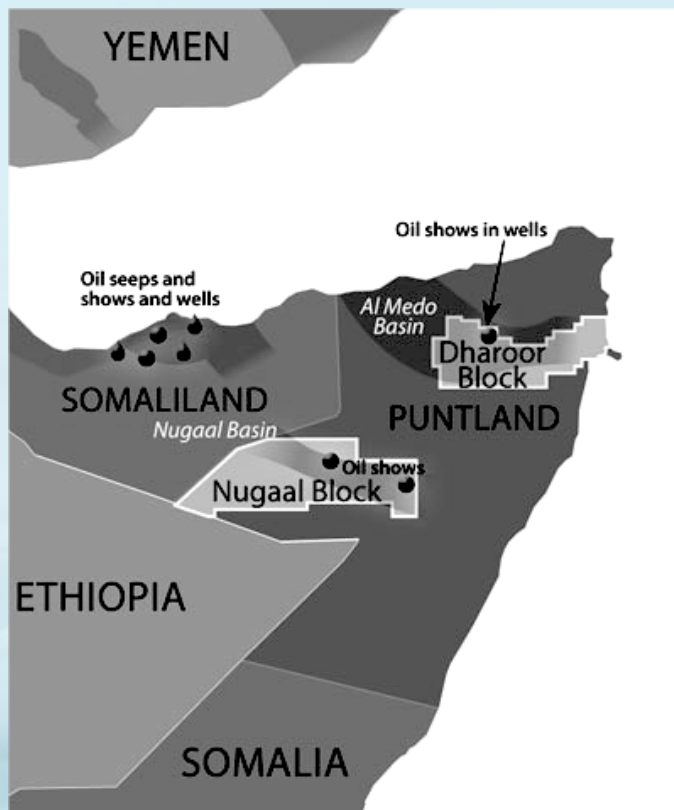
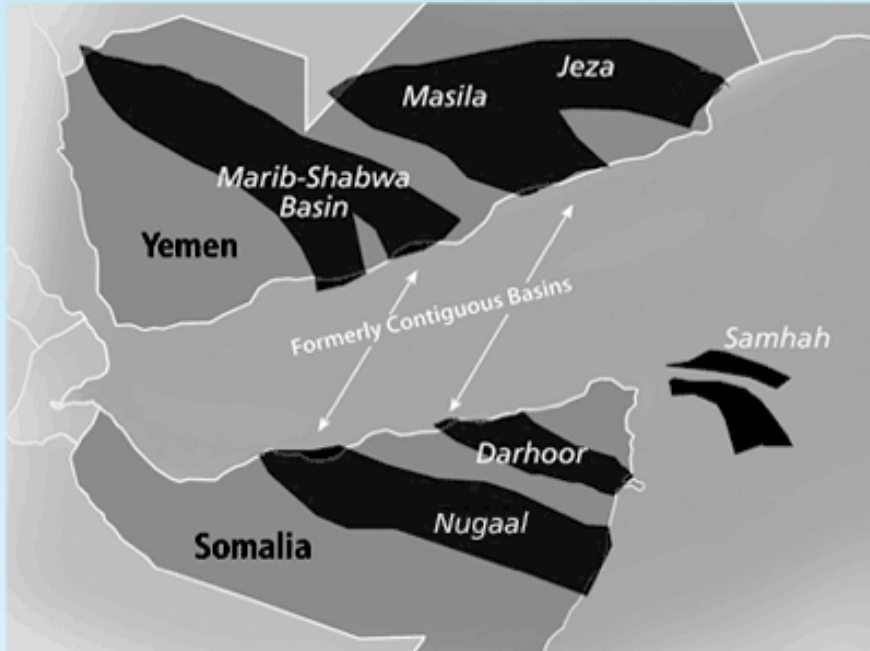
## OIL WELLS EXPLORATION

According to Balthasar, only 600 oil wells have been drilled so far, East Africa's petroleum sector is still in its early years of growth with roughly about 10% of wells having been drilled in Somalia. Certain hydrocarbon discoveries made in the past (Merca 1 in 1959, Coriole 1 in 1961 and Afgoi 1 in 1966), no drilling development and production has been made yet (Brigitte 2013). In 17th May 2012, Horn Petroleum Corp, the operator of Dharoor block encountered oil and gas in Shabeel 1. Also in June the same year Shabeel North 1 was drilled. Shabeel 1 and Shabeel North 1 marked the first wells to be explored for 20 years time. These satisfied first work obligations of the Dharoor and Nugaal Valleys Production sharing contracts in Puntland.

According to Brigitte May Report of Sub-Saharan Somalia, Dharoor block indicates large reserves prospects of gas and oil. In Nugaal block, excellent prospect have been identified after re-interpretation of 2D seismic data by Africa Oil Corporation and Range Resources which was made simpler than the complex structure encountered in 1991. In the summer of 1990, Conoco drilled Kalis 1 that was a dry hole and Nugal 1 that showed oil and gas in Nugaal Valley.

The geological formation of Somalia's bears parallel important to that of Yemen according to Range Resources, which holds large proven oil reserves. In the Northern Somalia, the present Nugaal and Dharoor blocks are associated with the South Yemeni Marib-Shabwa and Sayun-Masila basins in Yemen as shown in the Fig 3

**FIGURE 3: RELATIONSHIP BETWEEN YEMEN AND SOMALIA**



Source: <http://www.hornpetroleum.com/Operations.html>



Somali's petroleum exploration was in the frontier Exploration Phase from the beginning in the 1950s to the present. As a result of being in a frontier exploration phase, Somalia is significantly under explored relative to the country's promising potential hydrocarbon basins. The seismic survey grid was coarse (wide spaced) and sporadic in many places; and there are only 66 exploration wells, of which only 8 wells are offshore within the maritime area of approximately 835, 332 km<sup>2</sup> (Table 1).

**TABLE 1: WELL EXPLORATION**

<b>Basin Name</b>	<b>Onshore Wells</b>	<b>Offshore Wells</b>	<b>Basin area(km<sup>2</sup>)</b>
Gubah Basin	9	2	31,870
Darror-Nugal Basin	15	4	167,838
Central-Mudug Basin	14	2	169,651
Qorioley Basin	11	0	21,077
Jubba-Lamu Basin	6	0	54,826
Luuq-Mandheera Basin	3	0	89,003

## URANIUM MINING

Somalia has Substantial deposits of uranium in Bur Basement rocks in the Dooy area, between Dinsor, Bur Hakaba and Baydhaba. It's also found in Central Somalia areas such as Wabo and Mirig, east of Dhusamareb and in Galinsor-Wasil. Uranium is used as a fuel for nuclear plants mainly for generating electricity. Thus, the Ministry of Petroleum and Mineral Resources need to protect and restrict the areas from people who may intend to acquire uranium for making weapons of mass destruction. Uranium potential was not adequately explored and the exploration data and geologic report were lost in civil war. Somalia is interested in exploration of uranium and other minerals in order to boost economic growth. The mineral is associated with various problems such as danger of Al-Shabaab in controlling areas where the uranium deposits are, existence of regional administration that go easily into agreements with foreign explorers, lack of expertise and artisanal unregulated mining in Somali. There are greater opportunities in controlling and safeguarding the uranium deposits in promotion of security, job creation and income generation for the state. A new mining code is needed while uranium mining should have a separate legislation to restrict and regulate it. In addition, environmental protection and health and safety clauses should take priorities.

## 6.2 MINERALS AVAILABLE AND EXTRACTION

Somalia in recent years is known to produce small quantities of salt, sepiolite and gypsum. The mineral extractive industry makes small contribution to country's economy and exports small amounts. The mineral and trade data have been unavailable for a quite number of years due to collapse of the Somalia's central government. Adverse consequences have been brought up by the issue of the civil war that brought down the government resulting to low economy in the extractive sector. Somalia's cement plant and oil refinery closed down due the war.

The largest deposit of gypsum resources in Somalia occurs at Suria Malableh. This material deposit has been used to make school chalk, medical plaster and calcinated gypsum. The plans to increase the production have been delayed by war. The other gypsum deposits in Somalia occur in Southern Somalia close to the Bulo Burti areas and Belet Weine. Salt brine deposits from evaporated seawater have been exploited for many years in northern Somalia near Zeila. Other brine deposits include Gesirs, Horio and Karan. Salts deposits found near lakes in Obbia and Agherrar in the South West, Salt Springs in Darraboh and Heis Dagah in the northern west and rock salt in the south west.

The country has large quantities of Sepiolite in El Bur area; initial Somalia produced small quantities, which was its only export. Other minerals found in Somalia include feldspar found in Berdale, Bur Degis, Lferug and Waaf Dhai. Kaolin found in the Las Gal, Merodile and Bur Area including Bur Bur, Bur Galin, Bur Dubud, Bur Narible and Bur Siabo.

### RESOURCES EXTRACTION BEFORE 1990S

British mined Tin commercially in Somalia before World War II, along the Coastline. Sea salt was collected at several sites and In the South-Central they were often the largest reserves with clay mineral and sepiolite deposits. Also Tantalum and Tin deposits in Somalia were mined in the Mid 1970s by Technoexport Bulgaria in Dalan area.

### RESOURCES EXTRACTION 1990-2010

In 1992, only a few exploration sites had been discovered and located. During this time mineral extraction played a minimal role in the economic growth of the country. The mineral sector failed to expand owing to the fact that there was political and economic instability over a period of time and the sector did not play a significant role in the growth of economy before the overthrow of the government.



As the country politically stabilized they were able to extract some minerals. In 2003, they extracted gypsum, which was estimated at 1,500 metric tons, marine salt at 1,000 metric tons, and sepiolite at 6 metric tons. Also sand, clay, gravel and limestone were also produced. Certain other minerals deposits were yet to be exploited such as anhydrite, bauxite, columbite, feldspar, natural gas, iron ore, kaolin, quartz, silica sand, tantalum, thorium, tin, and uranium. Lack of stable central government in Somalia and with Somaliland and Puntland secession between 1991 and 2000, resulted in loss of mineral and trade data that was officially reported

## **RESOURCES EXTRACTION POST CONFLICT 2011 TO DATE**

Somalia in recent years is known to produce small quantities of salt, sepiolite and gypsum. The mineral extractive industry makes small contribution to country's economy and exports small amounts. The mineral and trade data have been unavailable for a quite number of years due to collapse of the Somalia's central government. Adverse consequences have been brought up by the issue of the civil war that brought down the government resulting to low economy in the extractive sector. Somalia's cement plant and oil refinery closed down due the war that started in 1990s. There are certain discoveries of amethyst, aquamarine, emerald, garnet, opal, ruby, and Sapphires indicates possible source of gemstones. The recent situation regarding gemstones in Somaliland has been limited by lack of advanced modern equipment, civil strife and poor infrastructure.

## **ARTISANAL PRODUCTION**

Somalia mining consists of non-metallic minerals including salt, gypsum, gemstones, sepiolite and Kaolin. Kaolin is normally used in South Somalia to make water containers, pots and also in ceramic industry. Other resources such as rock salt designed for domestic purposes and produced by the individuals traditionally. It's mined from Warshuba, Hiinlabi and Ba'adweyn in Galgaduud and also in Hafun, Zaila and Hurdiya Districts. Sea salt is found in lower Juba, South of Kismayo, on Kudha Shores and on South east coast of Somalia where is normally desalinated using the solar energy technologies. For instance, sea water is trapped in Jasiira South of Mogadishu where it is left under the sun to evaporate, leaving the salt rich minerals behind. The country has large deposits of Sepiolite in the El Bur area. The mining of sepiolite was done traditionally over the past years and was used to produce ceramic and art objects. Somalia had Sepiolite as the only mineral for export though it was produced in small quantities. Its immense industrial use is ought to attract more investor to venture in the mining of sepiolite in future. Before the World War II tin production was mined in Erigabo area during the colonial period. In 1970s tin-tantalum deposits were exploited at Majiyahan and Dhalan. Gemstone production in Somalia is not developed for export though there is growing market and attracts business people to venture into. Lack of good orientation and advises to the producers, exploiters and even the collectors in Bosaso, Mogadishu and Hargeisa markets.



## 6.3 UNTAPPED POTENTIAL AND UNDISCOVERED RESOURCES

The mining sector of Somalia is new and novice and over the years, it has been neglected and ignored. To the people who intend to venture in to the mining sector in Somalia it have vast potential and great opportunities. The Somalia geological study and minerals deposits abundance are key drive to rich and massive potential intended for discoveries and exploration.

Some of the minerals that are not yet exploited include gold, anhydrite, bauxite, columbite, copper, feldspar, iron ore, kaolin, quartz, silicas and, tantalum, thorium, tin and uranium, which indicate great economic potential for the country. The occurrence of deposits and heavy minerals of simpsonite (a high-grade calcic aluminium tantalite) on the beaches of East Berbera is found in the alluvial fans draining from the crystalline basement. It implies availability of tantalum resources in the adjoining basement. In recent times there have been several efforts including documentation of minerals especially oil with exploration contract being signed between Somalia government and foreign oil companies. There are also several efforts to award extraction rights to the companies that were operating prior to 1991 (Ehlers-Fliege, B., 2013).

## 6.4 POTENTIAL TARGETS FOR EVALUATION AND PRODUCTION

Availability of high grade limestone at Suria Malable near Berbera and Jiiqleey south of Beledweyne on the River Shabelle are suitable for cement production. The cement factory in Berbera was established for production of cement. Additionally, the world's largest deposits of gypsum-anhydrite are found near Berbera. About 80-90% raw material used in the production of cement is from limestone 10-15% clay and mudstone and 5% gypsum.

There is high priority for investment due to the aggregate production concrete and Asphalt in Somalia. This is driven by cities and towns that are under construction for instance Bosaso, Hargeisa, Baydhaba, Mogadishu and Kismayo as Somalia is stabilising. Piezo-quartz mining is reported in Da'arburuq, Lafaruug in Somaliland and in the north east of Somalia where the exploration was done in early 1980s by the Russians. Piezo-quartz is important for electronics.

Uranium deposits are documented to be found in Bur Massif, Galgaduud-Mudugand and in Alio Ghelle though their deposits need further exploration. Assessment work began in early 1984 but stopped in 1990s. At Dahimir and Bur Galan, low grades of iron ore deposits have been traced. In Arabsiyo and Elbur in Galmudug traces of Gold was reported but the data as per the report is not available. There are high grade of metamorphic rocks in the northern basement complex that surrounded a greenstone belts that have a potential of volcanogenic gold rich deposit. There are also presences of igneous complexes that are associated with platinum group metal.



There are deposits of tin-tantalum in Majiyahan and Elayo. Rock salt geology of Galmgudug is similar to the form of Playa-Like environment where lithium and salt mining evaluation could be carried out in the rock salts. On the other hand, Sepiolite deposit is one on the largest in the world. The production is mainly in Hobyo port in Central Somalia near EI Bur.

## 7. CHALLENGES FACING EXTRACTIVE SECTOR

There are major challenges that face the extractive sector in Somalia as a result of limited resources available in running a ministry. This includes; inadequate data as some is displaced and others lost (Strategic Plan 2016), insecurity, maritime boundary disputes, poor infrastructure in the extractive areas and inadequate resources for exploration and mapping. For instance; lack of new technology adoption and unskilled experts. The human capital capable of implementing suitable strategic plans in the ministry is less coupled with improper policies resulting to unattractive terms for investors. Inadequate supportive regulations and legislations, un-coordinated concession licenses and unclear sharing revenues approach between national and sub-national authorities are also major challenges. Certain companies in Somalia have entered into illegal investments contracts that endanger the state, potential investors and collaborating partners. This illegal deals are not recognized hence results to instability of the Somali's economy (Balthasar 2014).

Lack of transparency in the Draft Bill regarding the revenue that comes to the Federal Government is a major challenge since, nothing in the Draft Bill deals with record-keeping, disclosure and publication of information relating to the revenues, and their allocation and distribution. Lack of transparency in the ministry poses limitation to nation development that affect the profitability of the sector. In addition, the institution lacks adequate capacity building and oversight in the sector, and therefore, promotes the risks of corruption and deepens social division hence a key driver to conflict in the nation.

## 8. ECONOMIC DEVELOPMENT

In early 1990s before the start of civil war, manufacturing sector had a good foundation for growth. The economy of Somalia is based on agricultural activities; the main one being livestock keeping. Between 1969 and 1980s, the military government in Somalia imposed a system that encouraged state owned enterprise, trading companies, firms including oil companies, banks, insurance firms and other large industrial firms. This encouraged state controlled cooperatives. With the civil war and the collapse of the military regime the economy has gone down. The industries that were in operation suffered a lot, with major losses during the civil war.

There are deposits of tin-tantalum in Majiyahan and Elayo. Rock salt geology of Galmgudug is similar to the form of Playa-Like environment where lithium and salt mining evaluation could be carried out in the rock salts. On the other hand, Sepiolite deposit is one on the largest in the world. The production is mainly in Hobyo port in Central Somalia near EI Bur.

## 7. CHALLENGES FACING EXTRACTIVE SECTOR

There are major challenges that face the extractive sector in Somalia as a result of limited resources available in running a ministry. This includes; inadequate data as some is displaced and others lost (Strategic Plan 2016), insecurity, maritime boundary disputes, poor infrastructure in the extractive areas and inadequate resources for exploration and mapping. For instance; lack of new technology adoption and unskilled experts. The human capital capable of implementing suitable strategic plans in the ministry is less coupled with improper policies resulting to unattractive terms for investors. Inadequate supportive regulations and legislations, un-coordinated concession licenses and unclear sharing revenues approach between national and sub-national authorities are also major challenges. Certain companies in Somalia have entered into illegal investments contracts that endanger the state, potential investors and collaborating partners. This illegal deals are not recognized hence results to instability of the Somali's economy (Balthasar 2014).

Lack of transparency in the Draft Bill regarding the revenue that comes to the Federal Government is a major challenge since, nothing in the Draft Bill deals with record-keeping, disclosure and publication of information relating to the revenues, and their allocation and distribution. Lack of transparency in the ministry poses limitation to nation development that affect the profitability of the sector. In addition, the institution lacks adequate capacity building and oversight in the sector, and therefore, promotes the risks of corruption and deepens social division hence a key driver to conflict in the nation.

## 8. ECONOMIC DEVELOPMENT

In early 1990s before the start of civil war, manufacturing sector had a good foundation for growth. The economy of Somalia is based on agricultural activities; the main one being livestock keeping. Between 1969 and 1980s, the military government in Somalia imposed a system that encouraged state owned enterprise, trading companies, firms including oil companies, banks, insurance firms and other large industrial firms. This encouraged state controlled cooperatives. With the civil war and the collapse of the military regime the economy has gone down. The industries that were in operation suffered a lot, with major losses during the civil war.



## 1990-2010

Somalia's poverty has increased by the conflict of the civil war started in 1991. The on-going civil disturbances and clan rivalries, however, have interfered with any broad-based international aid arrangements and economic development. It has long been one of the world's poorest and least developed countries and has relatively few natural resources.

## POST CONFLICT 2011 TO DATE

The main problem affecting economic growth is the lack of stability, or the perception of it. For businesses to operate it is essential to provide some level of security. Internationally recognized governments are widely perceived as being more consistent in this than the traditional ethnic leadership that currently holds cause conflict in Somalia. The achievement of economic development in Somalia is attainable through development of natural gas, oil, minerals and other resources such as agriculture. To meet the needs of citizen in Somalia, it is necessary to prioritize exploration of certain minerals and establish other sources of oil and gas resources. This is in order to obtain enough revenues to run the Federal Government hence Provisions of basic services like Provision of incentives, developing transportation networks, improving security and supporting exploration sector by funding, adoption of new technology and improving the unskilled manpower. Somalia is a recognized Federal Government and works in partnership with other federal member states. It encourages potential investors and business partners who are willing to venture into nation's extractive sector operating within the rules of law that governs them. Moreover, Somalia is promoting transparency and corruption free management in the extractive sector to increase people's effort in developing the nation with the available resources.

## 9. SOCIAL AND POLITICAL IMPACTS

Politically, Somalia underwent numerous shifts and rifts over the past decades. The country experienced civil war, witnessed different administration succeeding one another and the formation of new political entities on its territory. Somaliland and Puntland are the well known sub-national political entities with Jubaland which is the recently established administration. There are other attempts to establish regional entities including Heeb, Galmudug and Himan. Some of these entities have signed deals with oil production companies without consent from the Federal Government a situation where contractual obligations and property rights remain unclear and contested. Although, the authority to issue licences remains the purview of Federal Government of Somalia.

There are other hurdles to oil production in Somalia such as difficulty in accessibility of the oil due to infrastructure and processing capacity. Others include tenuous security situation and large scale absence of functioning institutions in the central government. This makes political decision-making processes to remain highly unpredictable and depending more on individuals than institutions.

Hydrocarbon development potential may result to local tensions and undermine the Somali Government's aim to establish lasting peace and security. Oil production can poster local insecurity as evidenced in the case of Puntland. In August, 2005 President Mahmud had signed a contract with representatives of Range Resources in Dubai. The contract disregarded the Region's Constitution and the establishment of new Federal government.

When the Range Resources sent geologists, this led to civil unrest in peaceful village of Majiahan. In March and April 2006, local villagers took arms against Puntland security protecting the geologists from Range Resources; this led to death of ten people including soldiers and villagers. The operations between the Range Resources and Puntland were suspended, as it became clear that the local Warsangeli clan violently opposed territory encroachment without prior approval by the clan (NewsBank, 2008).

Formation of new security agencies is partially development in Puntland. For example, Salama Fikira of Kenya and Pathfinder Corporation was formed to protect operations of Africa Oil Corp. The Security companies that secured exploration operations resulted in the formation of an Exploration Security Unit (ESU). The purpose of ESU was to provide security for the Horn Petroleum-Canmex-Africa Oil Consortium-in 2011. The changes in this security decision does not improve security in the exploration sector rather it result to increase in difficult for the federal government to establish monopoly over large scale violence and enforce particular policies.

In 12th July, 2013 the UN Monitoring Group recommended in a letter that "Oil companies should cease and desist negotiations with Somali authorities. Continued negotiations under the current governance is likely to fuel risk on non-transparency practices and political disagreements that could exacerbate clan conflict and constitute threats to peace and security" (Confidential, 2013d)



## 10. EXTRACTIVE INDUSTRY CONFLICTS

Somalia since the civil war in 1991, have a high number of directly-resource-related conflicts, largely driven by battles between clan militias over access to and control of land and water resources. The international organisation that had interest in the extraction of minerals withdrew following the civil war and since then most have ceased to return. The available resources in and along the water bodies within other countries has been attributed to conflicts regarding the ownership. The situation of extractive industry conflict is still on with great potential for instability. Conflict lies in the ways, in which resources are extracted, and how the revenues from the extractive sector are shared and the involvement of the local communities in decision making processes. Mainly the indigenous people are often affected by the industries in the extractive sector this leads to obstruction in the expansion of extractive sector in Somalia. Nationally, conflict may arise due to lack of laws in; public participation, environmental assessment, local content provisions and transparent revenue collection. In the regional level the conflict may arise over sharing in revenue between state and region from the extractive sector. Conflict may also arise over the distribution of authority in management of extractive sector between state and region involved in the exploration of minerals. In local level conflict is stimulated by lack of communities and stakeholders involvement in the decision making regarding exploration of minerals. It may also arise over the social impacts, inequitable distribution of benefits, risks, cost and responsibilities. For example in Somaliland and Puntland regions there is strong clan structure that exists hence no armed group can exploit the inhabitants land, in other words, in case of extraction by international companies or other interested group this can automatically result to conflict. Some of the conflicts that are there in extractive industry are presented below as an example

Extractive Resources	Types of Conflict	Past Conflict
Chinese	Sharing the resource. The government intervened and stopped the operation in <b>SIMODI Mountain</b> near <b>Borame</b> District.	Nil
Kuwaiti	A member of Kuwaiti Royal Family has permanently settled near Sheikh District, after the government has given him a vast land with which he fenced with wire. One day he tried to clear and flatten the top of the <b>Qarasgoy mountain</b> to make an Air strip or install a power station, but the community rejected by believing that the Kuwaiti is exploiting valuable minerals and attacked the tractors. The police intervened and dispersed the attackers.	Nil

## 11. STAKEHOLDER ANALYSIS

Several stakeholders are involved in the extractive industry in Somalia playing different roles and have been involved in varying number of years as presented below. This involves both local and international company.

	Stakeholder/Institution	Mandate	Role in extractive sector year of engagement
1	Government authorities including; Ministry of Petroleum and Mineral Resources (MPMR, Ministry of energy and minerals among others	administering the nation's mineral resources	The central government has the responsibility for protecting these resources and distributing the benefit of both producing and non-producing region extractive sector
2	National and International Non-Government Organizations including UNDP, World bank, UN Security Council (adopted 2007)	Supports countries to strengthen their legal and institutional frameworks to negotiate and enforce contracts in transparent and accountable ways  To help countries to seize opportunities they offer for development, poverty reduction and boost shared prosperity	To ensure that the exploration and extraction operations are environmentally and socially sustainable as well as enhancing the participation of women's organisations, civil society, indigenous peoples and other affected groups in the decision making processes to ensure effective governance of the extractive sector.  To encourage transparency management of extractive industry for revenue to provide local benefits
3	Civil society Organizations e.g. Somalia South-central non state actors, Geological society of Somalia ,Heritage institute of policy studies	Helps the countries to cope with the issues of state-building, peace-building and conflict prevention	To shape how exploration takes place, and in supporting the development of the governance of the sector To regulate how exploration and extraction can take place in an accountable, transparent manner in line with principles of good governance safeguarding the environmental and in line with conflict sensitive approaches
4	Academic Institutions Somalia National university, University of Mogadishu	To provide quality training that boost growth and nation's economy	To provide training that is relevant to the industrial, commercial and economic needs in extractive sector
5	Local People	Small scale <u>extractive</u> excavation	Involvement since 1991



Several stakeholders are involved in the extractive industry in Somalia playing different roles and have been involved in varying number of years as presented below. This involves both local and international company.

	<b>Stakeholder/Institution</b>	<b>Mandate</b>	<b>Role in extractive sector year of engagement</b>
1	Government authorities including; Ministry of Petroleum and Mineral Resources (MPMR, Ministry of energy and minerals among others	administering the nation's mineral resources	The central government has the responsibility for protecting these resources and distributing the benefit of both producing and non-producing region extractive sector
2	National and International Non-Government Organizations including UNDP, World bank, UN Security Council (adopted 2007)	Supports countries to strengthen their legal and institutional frameworks to negotiate and enforce contracts in transparent and accountable ways  To help countries to seize opportunities they offer for development, poverty reduction and boost shared prosperity	To ensure that the exploration and extraction operations are environmentally and socially sustainable as well as enhancing the participation of women's organisations, civil society, indigenous peoples and other affected groups in the decision making processes to ensure effective governance of the extractive sector.  To encourage transparency management of extractive industry for revenue to provide local benefits
3	Civil society Organizations e.g. Somalia South-central non state actors, Geological society of Somalia ,Heritage institute of policy studies	Helps the countries to cope with the issues of state-building, peace-building and conflict prevention	To shape how exploration takes place, and in supporting the development of the governance of the sector To regulate how exploration and extraction can take place in an accountable, transparent manner in line with principles of good governance safeguarding the environmental and in line with conflict sensitive approaches
4	Academic Institutions Somalia National university, University of Mogadishu	To provide quality training that boost growth and nation's economy	To provide training that is relevant to the industrial, commercial and economic needs in extractive sector
5	Local People	Small scale <u>extractive</u> excavation	Involvement since 1991

	Stakeholder/Institution	Mandate	Role in extractive sector year of engagement
6	Chinese	Small scale excavation	Involvement since 2014
7	Somaliland ministry of Minerals	Provides legal framework	Involvement since 1991
8	Sahil Crystal Commercial Company	Searching external companies Works as experts	Involvement since 2005
9	Berbera Mineral and stone company	Searching external fund Works as local experts	Involvement since 2006
1	Connoco (international company)	Survey	Involved for 18 years
1	Shell (international company)	Survey	Involved for 18 years
1	Shaferon (international company)	Survey	Involved for 18 years

## 9. STAKEHOLDER CONSULTATION

The information in this section was generated from consultative session including interviews.

### INTRODUCTION

Somalia has limited information on minerals, with no concrete data and research work on the mineral resources availability. At the same time, there are illegal groups involved in collection and extraction of minerals in the country and information on the type and amount is lacking. The sector is also characterised by limited number of local experts, which limits local knowledge accumulation. This is occasioned partly by exodus of the few trained personnel who go seeking for employment in other countries leaving the country with inadequate knowledge necessary for sustainable mineral exploration.



## 12.1 EXTRACTIVE MINERALS AND EXPLORATION

Several minerals are found in different parts of Somalia and some have been used traditionally. Some of these include cement material in the mountains of Barbara, Anool, Markale, Barghere, Jiingale, Baladwenye and Uranium in Bay regions. Others include Gemstone in the Bay, Kismayo, Gedo and Bakool regions, with modified salt in Burao area.

Minerals used to make glass are found in coastal regions with diamond and chromium in Buur Hakabo area. While salt is found in Kudha and Kismayo, thermal Coal in Daban Basin, Iron deposits in Bradley, Mercury in Bakool, along with sodium, potassium, magnesium, manganese, phosphates and chlorides. Meerschaum (sepiolite) was traditionally exploited over the years producing “stove, and Dabqaad, artefacts and White soil in Abo-asharow. Other minerals include gold in Majiyahan and Almadow in Sanaag region as well as in Arbasiyo and Ebuur. Others include Tin in Majiyahan and Ma’ag area, Sea salt in Bari region, Copper in Majiyahan and Coal (dhuxul Dhagax) in between Bosan and Lasqorayn in Somalia.

Petroleum in Somalia was explored first in 1930s by the Italy and in 1970s by the Bulgaria and currently by the Soma-Oil in areas like Dhahoor Valley between 2011-2012. The oil deposits were found in Afgoi (1988), Nugaal (2010), Bara Region, Gedo, Northwest and Northeast regions of Somalia. Both Italy and Russia did a satellite exploration of the minerals and produced maps of exploration. While Soma-Oil explored oil deposits offshore. Nugaal Valley is one of the oil wells mapped area. Before the collapse of the central government, there were few petroleum companies such as Conoco and Shell that were involved in petroleum survey. Some of the locations explored with potential of petroleum include Saylac and Lasanood, though with inadequate information.

## 12.2 ROLE OF NATIONAL AND INTERNATIONAL INSTITUTIONS

Ministry of Mines and Energy of the Federal government is responsible for the mining sector development in the country. The main responsibilities include; issuing of licenses and regulating mineral and petroleum operations. While the Somali Geological Survey, an autonomous institution under the Ministry, is responsible for undertaking basic geological mapping, mineral exploration, generate basic geosciences data and other related geological activities. The Regional States Mines Bureaus/Agencies have also the mandate to issue and administer prospecting, exploration and artisanal and small scale mining for national investors.

## 12.3 LEGAL FRAMEWORK

According to the stakeholders views generated from the consultative process. The Federal Government of Somalia has weak legal framework characterised by unclear regulations pertaining to investment and mineral rights in the extractive sector. This Legal ambiguities and political contention need to be addressed. Federal government executive should look for politically viable and binding solutions to the authority responsible for entering into legal agreement with entities in the extractive sector so as to grant him extractive rights.

To effectively manage oil agreements with the international companies, Somalia must investigate first the best way to acquire and retain technical expertise and administrative capacity for a sustainable development of the sector. This should take into consideration resource sharing legal framework, regulation of resources through offshore and onshore laws. Other consideration should include environmental laws, labour law, and economic development policies. This should be coupled by strict enforcement of enacted laws along with transparency and accountability. Local communities should have a chance to know of the companies, investors and partners that enter into the contract with the Federal government and participate in their contract negotiations. Clear legal procedures on how this is attained should be set to avoid personal interest and ambiguity. This will help to avoid internal conflict within a community, between the contractors and other stakeholders.

It's clear that, to minimize adverse exploration effects to achieve a sustainable development, the country must address first the political, legal and institutional ambiguities. As a matter of good practice for the governance of extractive industries fairness and transparency in contracts and sharing of revenue is important.

## 12.4 SOCIAL BENEFITS

The mineral sector brings benefits not only to the nation but even to the local communities where there are mineral development activities in their nearby areas. The local communities both skilled and unskilled tend to benefit from more employment opportunity thus increasing the per capita income of the individual household. People tend to move from rural areas to the area of mineral exploration for employment and attracted to invest in these areas. The employment is mainly in construction and industrial minerals; quarries, open pit and underground gold mine, production of salts from brines, rock salts and the gemstone mining with distribution of such activities being found all over the country. This tends to improve the livelihood of the local communities and hence result in the development of the country as general pushing the GDP up.



The formal artisanal mining activity also reduces the poverty level of millions people including 30 to 40% of the women participating. The development of the minerals sector is likely trigger development of improved infrastructures, education and health. For example, different level of health services centers could be developed, schools and youth rehabilitation center. Again, the sector could provide training to the local communities to engage in other form of economic benefits such as involvement in agricultural activities. While the local community's youth could specifically benefit from technical training skills. The support of the energy sector to mining comes from electric power of national grid while telecommunication infrastructures has been developed and upgraded due to serve the development of Gold, tantalum, salt and other major mining projects in different parts of the country. Small entrepreneurs' engagement has been developed in the area such as hotel, mini- markets, stationeries to provide good and services to the local communities and mining sector.

## 12.5 ECONOMIC BENEFITS

The extractive sector in Somalia generates revenue from the sales of royalties, sales of minerals, taxes and also from the foreign currency. This revenue focuses on improving public sector services e.g. the improved infrastructure, education and health sector. In Somalia, over 80% of the population is engaged in livestock and related activities, which also form major, export of the country. However, the country perceived wide mineral potential, if managed properly, can in addition to livestock improve livelihood and income at the domestic level. This extractive industries prosperity can only take place if there is respect for community needs and good environment management. To achieve this, host countries often need to strike a delicate balance between offering attractive terms and guarantees for foreign investment, and concurrently creating domestic employment, generating revenues, and protecting the interests of local communities. International trade and investment frameworks thus have a central role to play in ensuring that trade in natural resources effectively results in transformative development and inclusive of the country GDP growth, while simultaneously providing fair and predictable access on global markets for countries that rely on such resources. The mining sector plays a critical role in the national economy.

## 12.6 CONFLICT AND PEACE BUILDING

Political and social instability is a feature of many countries where there are large oil and gas resources are present. The competition for reserves is increasingly drawing the oil and gas industry into more conflict-prone regions of the world. Conflicts pose a serious risk to any business development. Companies working in regions in Somalia where there is current or recent conflict, which is based on tribe and borders, may need to take mitigating action to reduce and manage the difficulties existing and future operations that they may face. Conflict and social unrest can cause costly delays to new projects and operations. It is easier to prevent discontent than to defuse it when it has already emerged.



Companies should therefore research the potential impacts of their operations by undertaking environmental and social strategic assessment of their plans and programmes. The results could be used to build relationships with local communities and governments.

They also need to assess whether their actions and policies could inadvertently stimulate new conflicts or aggravate old ones. Effective economic development and conflict resolution of the country can be resolved by considering political dialogue of reconciliation, fair resources sharing, just laws, transparency and accountability and through trust from international community. With a peaceful nation it will encourage employment and independence from foreign aid.

## **12.7 ENVIRONMENTAL MANAGEMENT**

It is inevitable that extraction of minerals leads to disturbance in the environment, disrupting ecosystem process, products and services as well as polluting. When disturbing the environment there must be careful and systemic protection of the whole ecosystem thus ensure sustainable use of the natural resources and ecosystem. This would ensure either less or almost none destruction or pollution of the environment. The current environmental legislation of Somalia has no provision that requires compulsory criteria to study possible impacts. Thus, the need for a legislation that will ensure compulsory submission and approval of Environmental Impact Assessment from the respective client/proponent before developing mining project is necessary. This will encourage environmental protection and sustainability.

The common environmental issues in Somalia to be considered in terms of development of medium to large scale mining projects, impacts on surface and ground water system, the physical land management (soil and rock stability, deforestation grass land, farm land, etc.). Others are spillages of different chemicals that release toxins to the environment contributing to including air pollution soil pollution. It is also important consider possible land scape degradation leading to loss of aesthetic values of the area, erosion of cultural and tourist heritage. This also affects the communities living within the community including their livestock.

## **12.8 POLITICAL ISSUES**

The country has been characterized by competition for scarce resources, power, state fragility and proliferation of violence. The escalating situation between the Central Government and Federal states about resource management and ownership undermines the political progress. Owing to more than two decades of conflict due to political instability, it is estimated that 15% of the former Somalia population now lives in exile, while many more are internally displaced thus resulting too much tension between the Federal government and regional states. This also discourages international organization from venturing into the country due to political instability hence effecting economic development.



Somalia is faced by major challenges in political issues including; unclear sharing revenues approach between national and sub-national authorities. Others include lack of transparency that poses limitation to national development that affects the profitability of the sector, lack of political progress accompanied with illegal exploration of minerals.

## 12.9 CHALLENGES IN EXTRACTIVE SECTOR

Some of the major challenges facing the Somalia extractive industries as highlighted by stakeholders in Focus Group Discussion are as follows:-

- Political conflict and insecurity in the country
- Political tension between federal government and regional states since there are no clear roles ( Federal regional and communities)
- Lack of legal framework and sound policy(It's not clear if the rights to mine lay with the federal government or local government, No agreement on resource sharing)
- Limited knowledge and sector professionals as a result of lack of specialized institutions for this sector thus leading to shortage of local experts.
- Conflict of interest(Federalism – Too many players ,Conflicting international influences)
- Inadequate existence of definitive research
- Limited verified information to the general public on extractive minerals
- Limited foreign investment.
- Land ownership by the communities which can cause conflict especially with regard to choice of investments

## 13. STAKEHOLDERS CONSULTATION

This involved survey of sector specific stakeholders to capture views within the sector

### 13.1 STAKEHOLDERS CONSULTATION

The study covered various Counties including Adaado, Somalia, Garowe Puntland, Banaadir, Mogadishu, Hargeisa, Kismayo, Puntland, Bay Region and Baidoa. Various stakeholders were covered in the survey that also captured sectors diversity (Table 2), with most respondents coming from local government and geological society of Somalia.

## TABLE 2: STAKEHOLDERS COVERED IN THE SURVEY

Organization	(%)
Education Sector	3.5
Local Mining Group	3.5
Atta Jubba Organisation	3.5
Central Government	3.5
Local Government	7.0
Solar Energy Consulting and Construction Company	3.5
Prospect International College	3.5
Group of people who collect minerals in Puntland	3.5
Said Company	3.5
Ministry of Petroleum and Mineral Resources	3.5
Geological Society of Somalia	7.0
Somalia National University	3.5
Self-Worker	3.5
Centre for Research and Policy Analysis	3.5
Office of the President	3.5
Starsom Airlines	1.8
Ministry of Ports and Marine Transportation	1.8
Ministry of Justice and Judiciary	1.8
Galmudug State of Somalia	1.8

Table 2: Stakeholders covered in the survey

These stakeholders are involved in a wide range of activities some of these include education and training (7.0 %), collection and selling of minerals (7.0 %) and research and policies studies (5.3%) among other respective activities.



## 13.2 STATUS OF EXTRACTIVE INDUSTRY MINERAL RESOURCES EXTRACTED

Several minerals are extracted from various parts of Somalia with gold being the most sought after (20.1%), followed by Sea salt (12.9%) and uranium (0.6%) (fig 4).

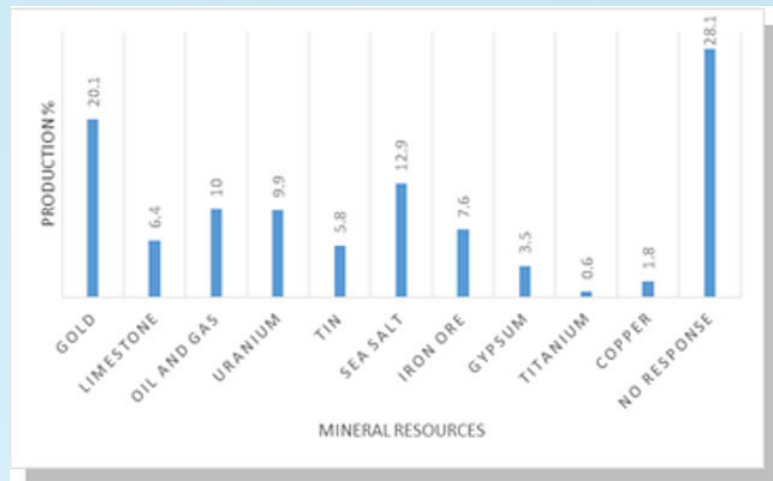


FIGURE 4:  
MINERALS EXTRACTED IN SOMALIA

## 13.3 LOCATION OF THE MINERALS

The minerals extracted are found in different locations in Somalia (Fig 5). For example gold is found mainly in Kudhaa, Malijahn, Burhakaba and Galgaduud. Oil and gas is mainly found in Kismayo, Kudhaa, Gobweyn and Tin in Elayo according to various respondents. This means that the local people are privy to the information on presence of extractive minerals to some extent.

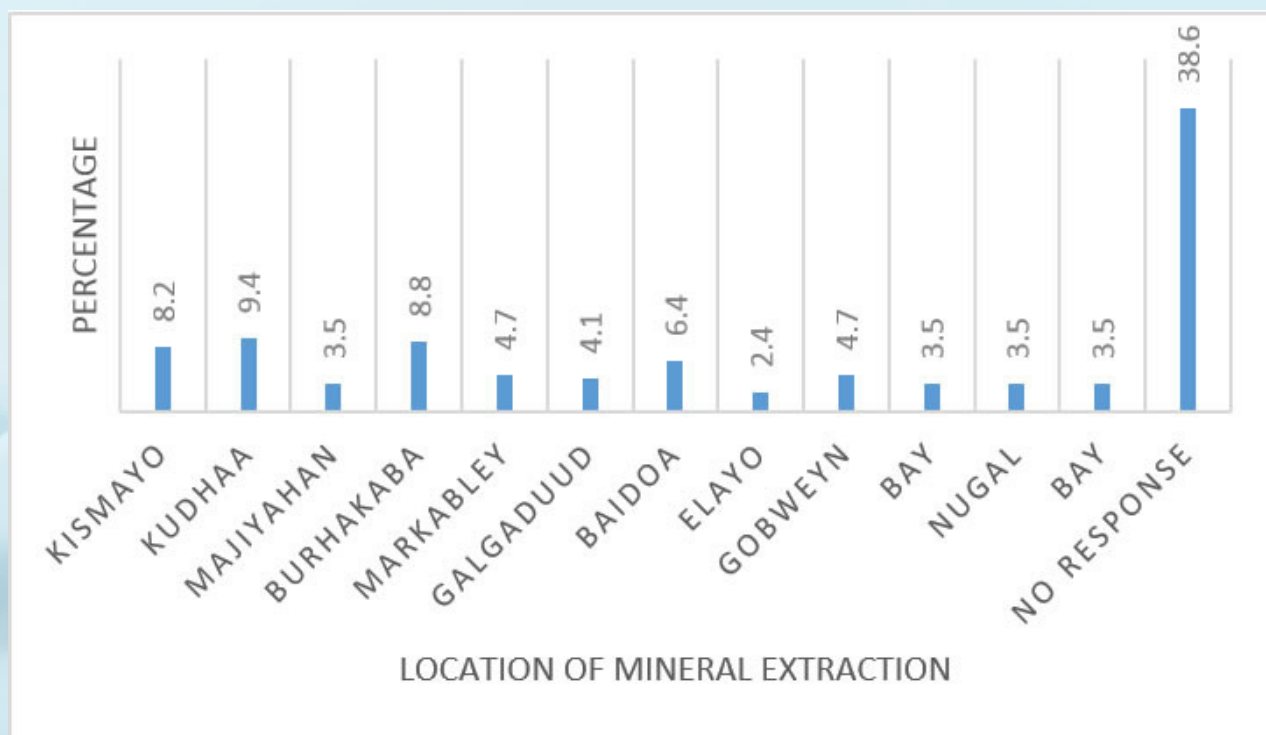
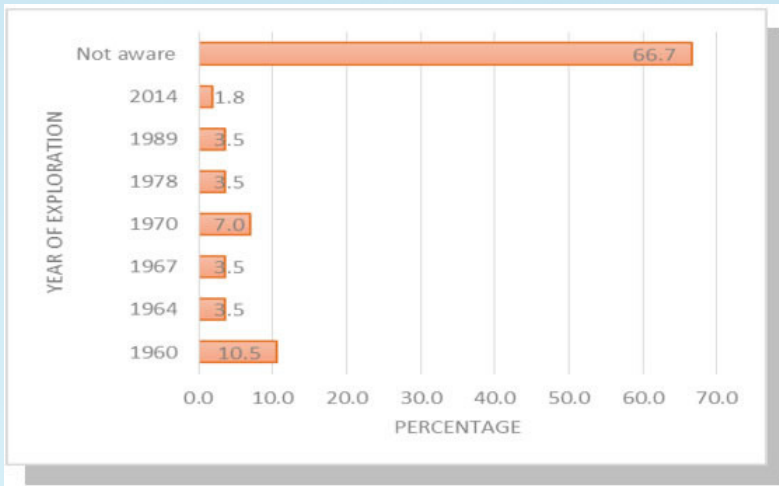


Figure 5: Shows the Main location of minerals extracted

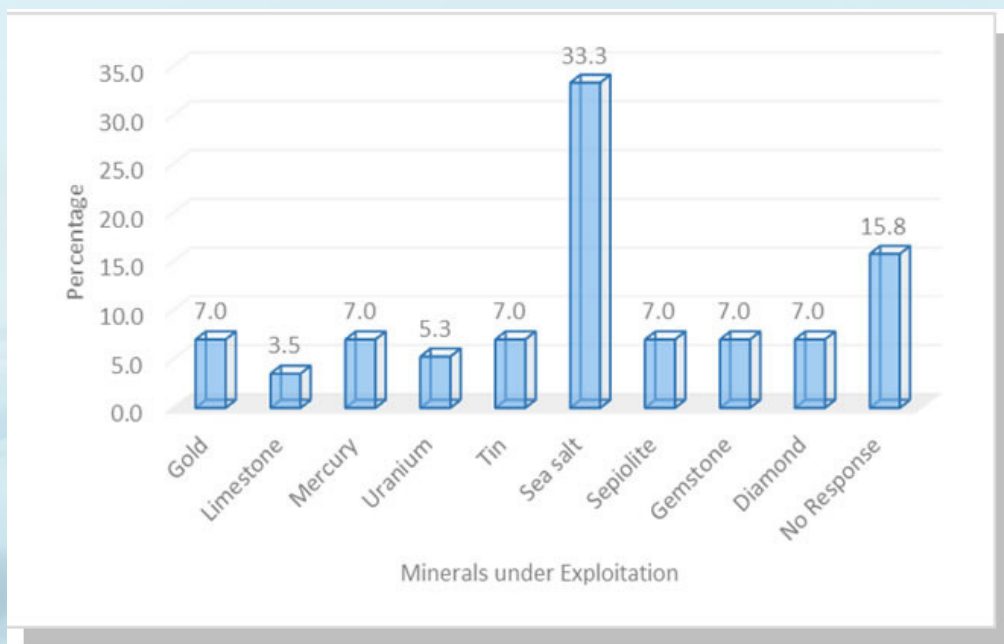
Most of the respondents (66.7%) were not aware of when the exploration started with only 10.5% mentioning that it started in early 1960s (fig 6). This corresponds to the literature available, which further re-emphasizes the limited knowledge on presence of extractive minerals.



**FIGURE 6:  
NOTED YEAR OF MINERALS  
EXPLORATION COMMENCEMENT**

### 13.4 UNDER EXPLOITED MINERALS

Despite availability and exploration of minerals in various areas, there are certain minerals that are still under exploited. These include Gold, Mercury, Tin, Sepiolite and Gemstone (7% each) (fig 7). The list includes even those minerals that are highly sought and exploited currently, meaning that the level of exploitation is still very low.



**Figure 7: Minerals under exploitation**



## 10.5 MAIN MARKET

The main market where the minerals are sold both locally and internationally were noted (Fig 8). Internationally, the main market mentioned include Emirates (8.8%), United Arabs Emirates (6.2%), Turkey (5.3%) and Kenya (4.4%) where the minerals are sold. While locally, the market mentioned includes; Afmadow (4.7%),Kismayo (4.4%), Jilib (3.6%), Jamame, Bardhere, Dhobley (2.7%). Others markets include Malaysia, China and some European markets. This indicates that there is need to analysis the value chain of both local and international market.

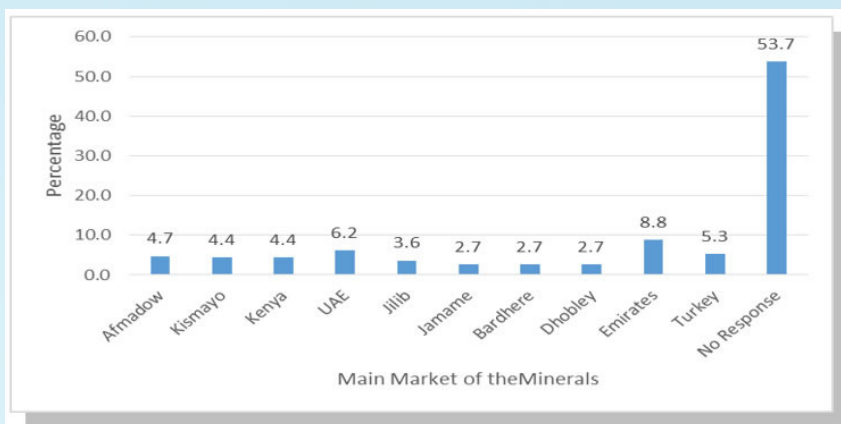


FIGURE 8: MAIN MARKET FOR THE MINERALS

## MINERAL EXTRACTOR

Mineral extraction is mainly done by men (51%) followed by organized groups (40%) (fig 9). The Women and youths do not participate in mineral extraction as per the respondents.

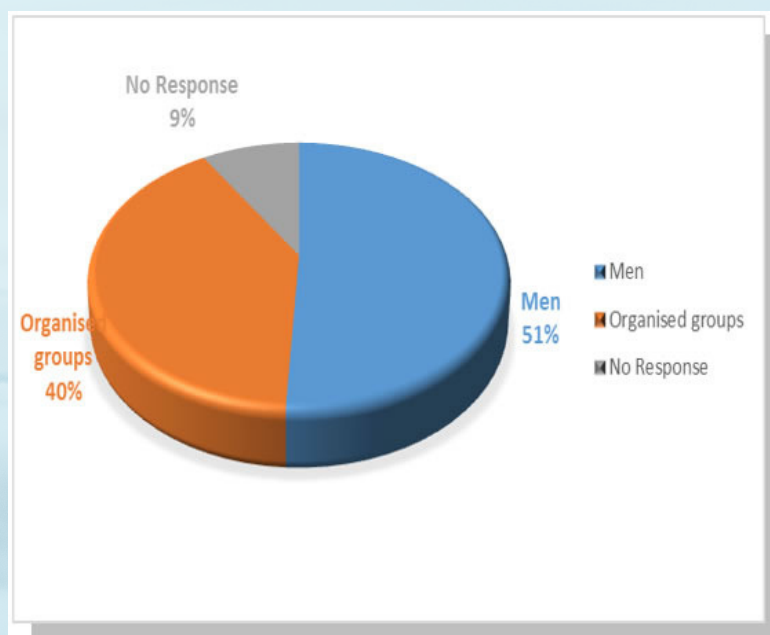


Figure 9: Mineral Extractor stakeholders

### 13.6 CHALLENGES FACING EXPLOITATION

The major challenges that faced past exploitation in Somalia (Figure 10) include miscalculation of the natural resources between oil corporate and the central government 19.3%), conflict and insecurity (10.5% each) among other factors.

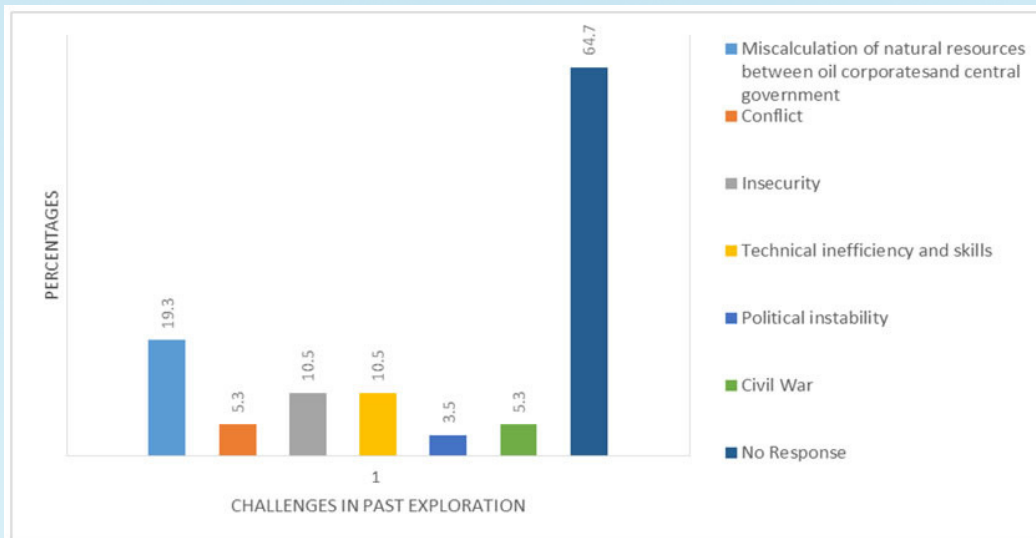


FIGURE 10: CHALLENGES THAT FACED SECTOR IN THE PAST

There are some challenges that are likely to emerge in the extractive sector. These include conflicts, environmental damage, mistrust and insecurity (fig 11). These likely challenges mirror those, which had been experienced before meaning that based on the past experience possible solutions and mitigation measures can be formulated. Streamlining of this sector should take note of these challenges and avoid disorder.

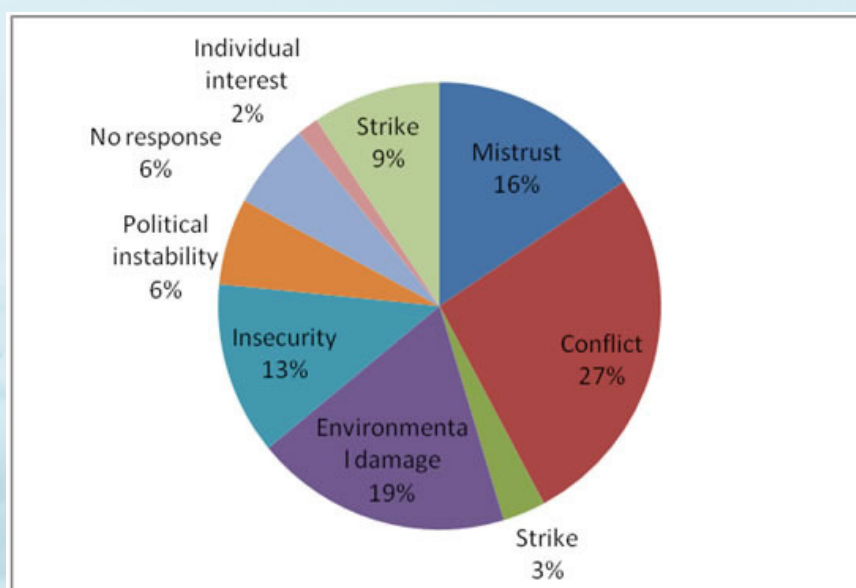


Figure 11: Likely challenges to emerge



### 13.7 AREAS EXPLORED AND MAPPED

In terms of available information, there is some information available on areas in Somalia that have been explored and mapped (Fig12). These include Dharoor Valley (8.8%), Nugaal, Gedo, Galgaduud, Kudhaa and Burgabo area (3.5%) respectively and Markabley (1.8%). Although a large majority had no information on areas explored. This information is an indication of the limited information on extractive minerals and the need for generation of this information

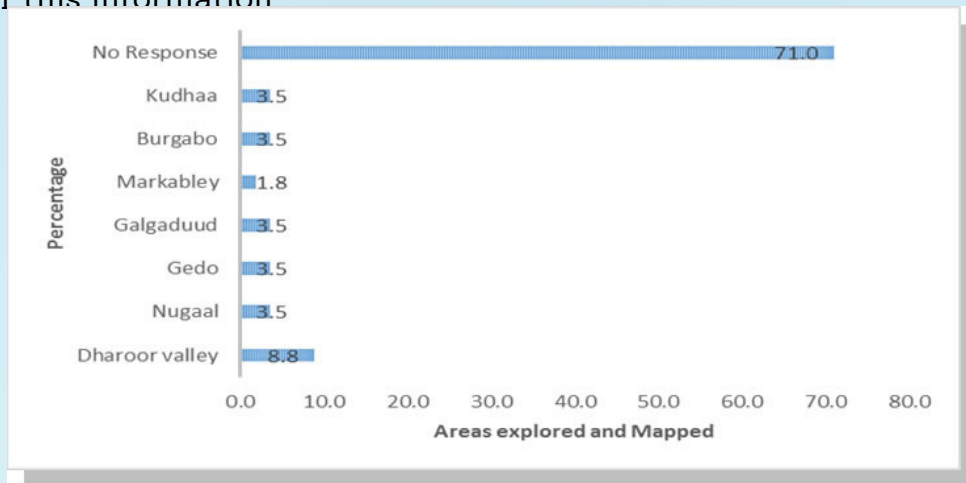


FIGURE 12: AREAS EXPLORED AND MAPPED

Analysis of the reasons behind halting of the exploration highlighted the civil war in 1990s (38.6%) that was cited as the major reason, the war broke out in early 1990s and disrupted civil organisation (Fig 13). Other reasons included conflict (12.3%) , lack of security(8.8%), political crises and lack of central government (5.3%), while 3.5% of the respondent had a view that exploration was considered an illegal business and that is why it stopped. However, no mining or extractions of specific minerals have stopped overtime, chances of reducing in scale of operation

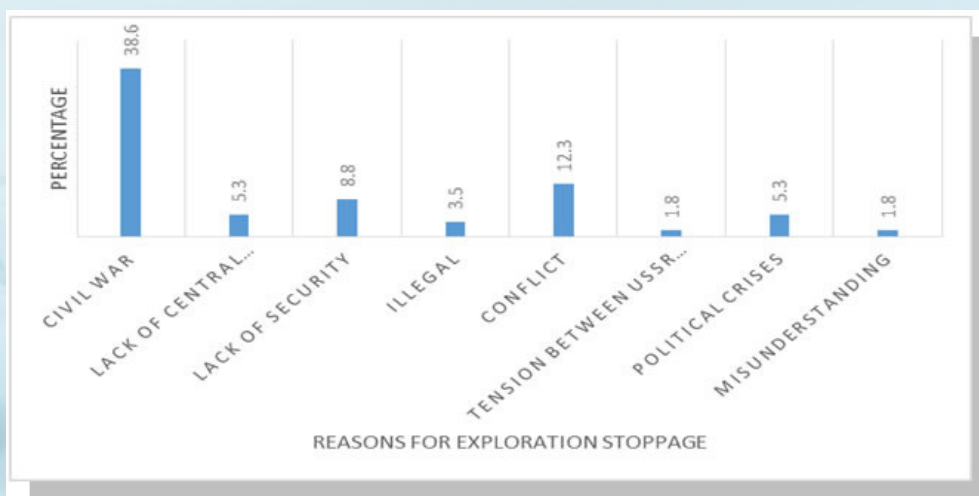


Figure 13: Reason why Exploration stopped

## 10.8 ROLE OF NATIONAL AND INTERNATIONAL INSTITUTIONS/STAKEHOLDERS

There are several stakeholders involved in the extractive sector not necessary in exploration but also in facilitating studies and regulation formulation. These include World Bank, Ministry of petroleum and Africa oil crop were the most mentioned. The Ministry of Petroleum and mineral resources is under the Federal Government of Somalia (Fig 14) meaning that national institutions involved are known. This indicates that it is easy to initiate a forum for discussion on issues affecting the extractive sector in Somalia

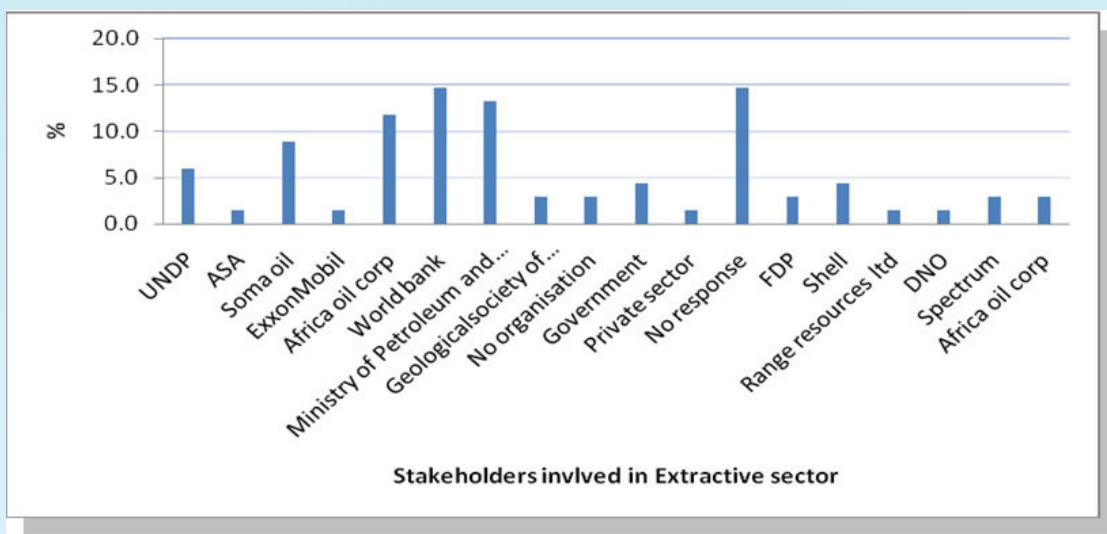


FIGURE 14: ORGANIZATION INVOLVED IN THE EXTRACTIVE SECTOR

## ROLES OF STAKEHOLDERS

These stakeholders are involved in several responsibilities, which include ensuring equitable sharing of resources, preventing political instability thus promoting peace and to help in decision making (Fig 15). This means that there are sectoral areas that can be prioritised and strengthened in this sector through stakeholders involvement. Somali falling in ecological zone 4 and 5 to a large extent has fragile arid to semi-arid ecosystem, which needs protection from degradation due to likely expensive repair cost

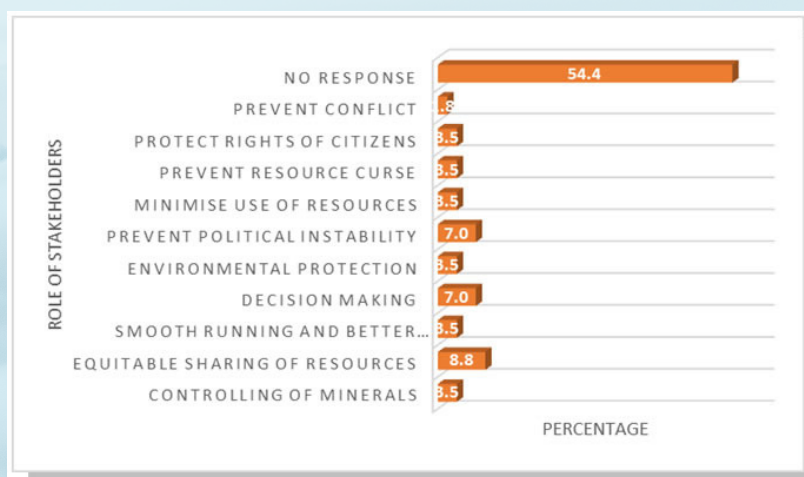


Figure 15: Role of Stakeholders



## LOCAL COMMUNITY ROLE

From the survey, the main role of community is to ensure security and to provide labour in the extraction sites in the country (61%) and also to make decision (16%) (fig 16). This also indicates the community have a role or expected role in decision making and thus a participatory approach is necessary in decision making. It is necessary to capture this in upcoming legislation

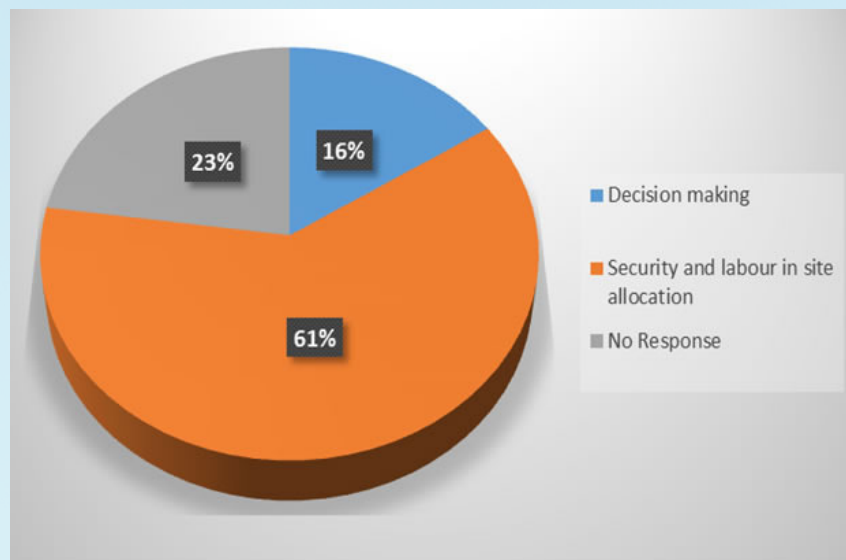


FIGURE 16: ROLE OF THE LOCAL COMMUNITIES

## 13.9 STATUS OF LEGISLATIVE FRAMEWORK

There are several legal framework associated with extractive industry with the petroleum and mining code of 1984 being mentioned most (fig. 17). However, majority of respondents did not mention any legislation associated with extractive framework. While the mining code is old and out dated, and was useful then there are some other legislations, which were formulated in 2010s which can help in guiding the extractive sector. However, there is need to formulate a legislation specifically inclusive to guide the extractive sector

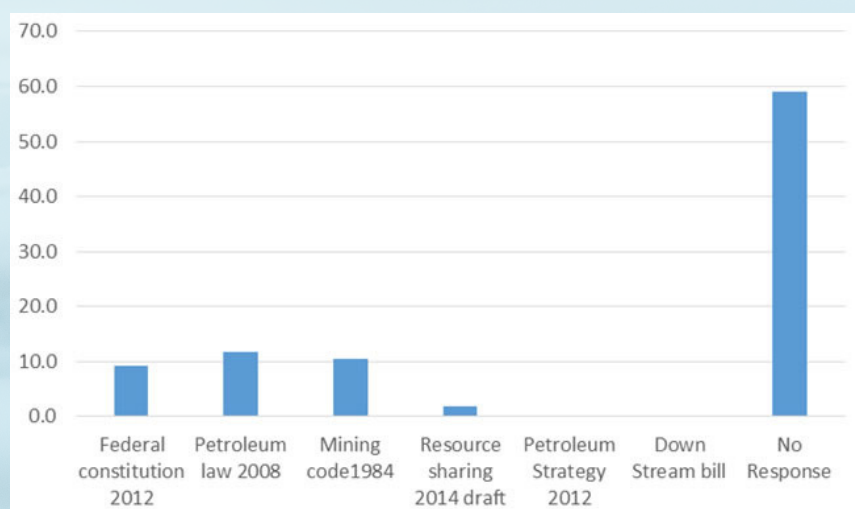


Figure 17: Legal Framework Associated with Extractive Industry

## 13.10 PROVISIONS OF THE INDIVIDUAL LEGAL FRAMEWORK

The highlighted legislations have specific provisions, although only the petroleum law and constitution specific sections were cited (fig 18). This means that the stakeholders are aware of provisions of these frameworks and implementation of the same would be relatively easy

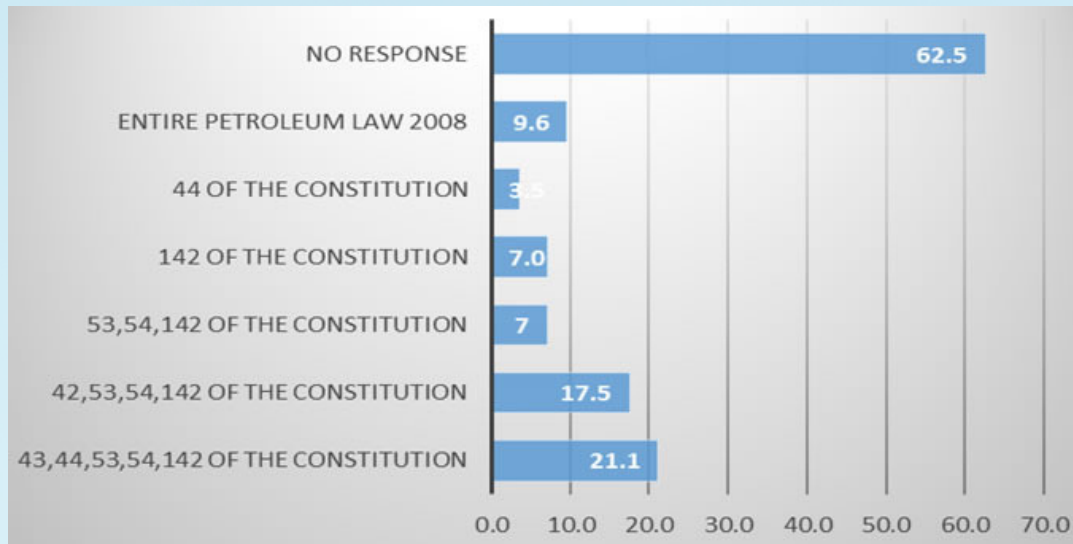


FIGURE 18: MAJOR PROVISIONS OF INDIVIDUAL LEGAL FRAMEWORK

## GAPS/WEAKNESSES

Some of the legal framework mentioned by the various respondents included lack of environmental protection law and lack of clear policies (fig 19). Others include contradiction of the legal framework, lack of resource sharing provision. This shows that there is need to start consultation on a specific mining legislation both policy and act that would help in streamlining the sector and promote growth. Only 90% indicated that there is no law on environmental impact assessment and audit meaning a huge gap in environmental management. With extractive sector being natural resources based there is urgent need for a legal framework on environment.

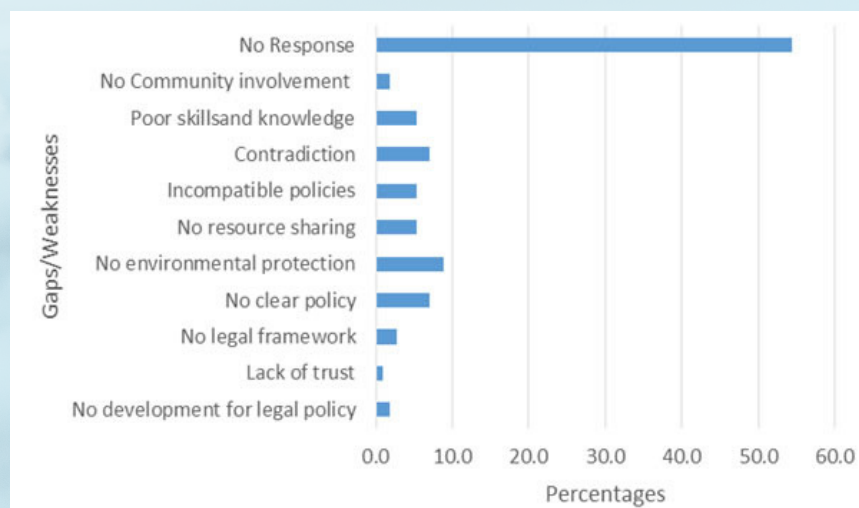


Figure 19: Gaps/Weaknesses of the Exploration Sector Page 050



About 51% of the respondents indicated that there are legislations that should be formulated. The ones cited include production sharing agreement and environmental protection law with these two receiving most citing based on the rationale for formulation (table 3).

Other legal framework noted included the fiscal law and federal constitution. There were varied reasons why these legislations should be formulated including need for equitable sharing, decision making and to prevent political instability, these three were cited by most respondents indicating their importance. However, a large majority did not provide a reason why these legal frameworks should be formulated. In addition to these national legal frameworks, the need to be part of international legal agreement was noted with United Nation conventions, Africa union and Arab league noted as necessary area where Somalia should join as part of international legal framework. Only 9% noted that there are institutions of higher learning in extractive industry meaning that there is a huge knowledge gap and low capacity building.

Rationale for legislation	%
Controlling of minerals	3.5
Equitable sharing of resources	8.8
Smooth running and better benefit	3.5
Decision making	7.0
Environmental protection	3.5
Prevent political instability	7.0
Minimise use of resources	3.5
Prevent resource curse	3.5
Protect rights of citizens	3.5
Prevent conflict	1.8
No response	54.4

Table 3 Reason for need of legislation formulation

### 13.11 LINK BETWEEN CONFLICT, PEACE BUILDING AND EXTRACTIVE INDUSTRIES

According to the survey only 35% indicated that there is a relationship between extractive industry and peace but most of the respondent said there is no relationship (56.1%) between the extractive industry and peace building. However, majority (51%) mentioned various opportunities in extractive industry that could come up as a result of peace building in the country (fig 20). These include job creation and increased revenue 14% and 10.5% respectively that would also improve the Country economy as results of extractive industry. The 40% that see no opportunities in peace building is an area that need further probing into what might need to the done to remove the risk of conflict with extractive minerals

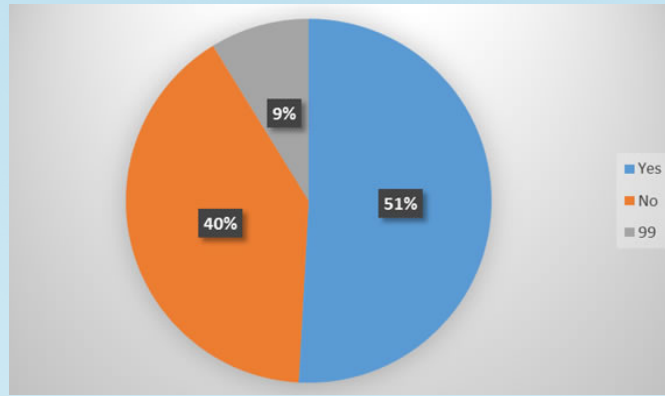


Figure 20: Opportunities in Peace Building

Other opportunities for peace building include sharing of resources, youth training on various skills, building of social amenities among others (fig 21). However, for this to happen, the legal framework and political environment need to be addressed to ensure that they provide conducive environment for peaceful extractive minerals industry.

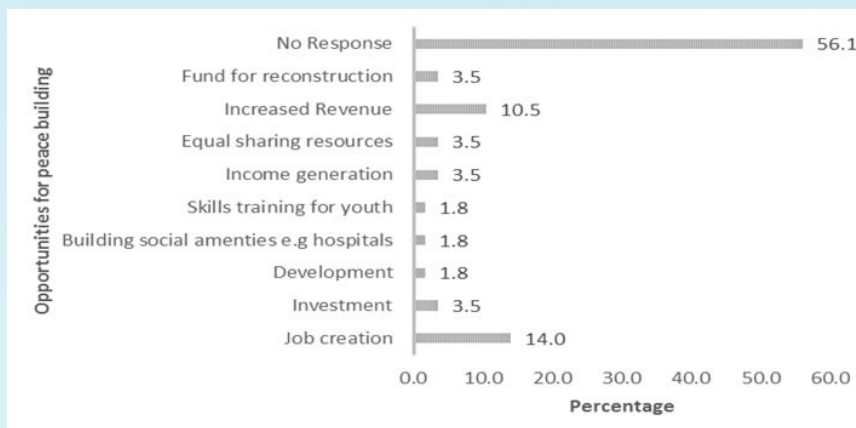


Figure 21: Opportunities for Peace Building

At the moment the extractive industry provide no significant benefit according to 61.4% of the respondents in spite of widespread exploration. The , while the only benefit mentioned was the building of Kismayo Port and tarmacking of the road between Kismayo and Mogadishu(24.6%) (fig 22)

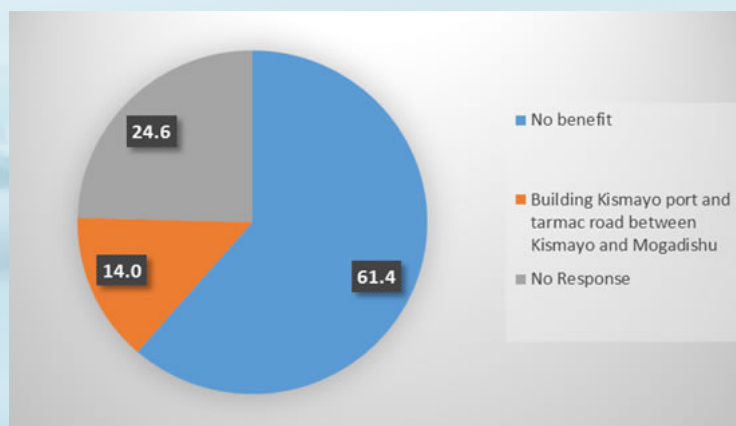


Figure 22: Benefits from Mining Sector



While there have been numerous explorations in the Country, there is no consultations that has been carried by the international companies to the local communities out according to 77.2% of the respondents. This is extended to extraction of minerals, which is partly attributed to both internal and external conflict between the communities and the international communities involved in the exploration. Few respondent (14%) mentioned that is usually consultation. This means that to a large extent, there is need to increase consultation and particularly promote participatory development, which the current global paradigm, common in natural resources.

### 13.12 APPROACH FOR IMPLEMENTATION OF THE EXTRACTIVE SECTOR

Based on the current status of the extractive sector the respondent proposed approaches for an effective extractive sector. The approaches proposed are as follows; promote community involvement (43.9%), wider stakeholder involvement (14%), inclusion of production sharing agreement between the oil companies and the government or the regional stakeholder and community (14%) , having clear and transparency policies and legal framework (4.7%). Also mentioned was having environmental protection law (3.5%) to ensure better protection and management of the natural resources (fig 23). This means that there are great opportunities for improve management of the extractive sector. One are that was not mentioned is the improved political governance, which is essential for the operation of this sector

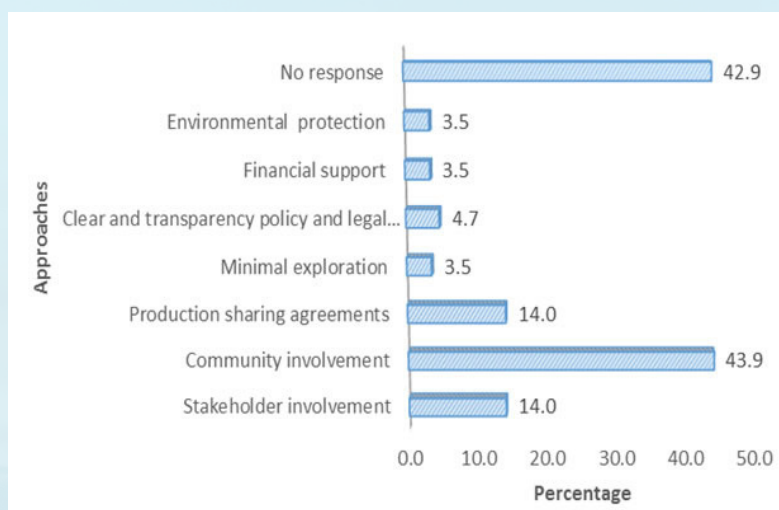


Figure 23: Approaches proposed for Extractive Sector

However, the citizen should be aware of possible challenges including insecurity according to 56% of the respondents. Others are conflict (14%), legal framework and environmental problems. While there some opportunities that would come with improved extractive sector including financial support for investments and job creation.

## **14. LEGAL FRAMEWORK**

### **14.1 INSTITUTIONAL FRAMEWORK**

On 17th January 2013, United State formally recognised Federal Republic of Somalia (FRS) the successor to the Democratic Republic of Somalia. The government is recognised as a Federal Member States and has a degree of autonomy over regional affairs. Its authorities do not extend to unilaterally granting rights to explore and develop the nation's mineral resources, as shown in a situation where Puntland and Somaliland have signed Petroleum agreements with foreign countries.

### **14.2 PROVISIONAL CONSTITUTION**

The approval of the Provisional Constitution for The Federal Republic of Somalia on 1st August 2012, subjected the Federal Members State constitutionally to the authority of the Federal Government of Somalia. The Provisional Constitution is the supreme law of the land.

According to the Article 43.2 land should be managed and used in an efficient, equitable, useful and sustainable way. In the Article 44, the natural resources allocation of the Federal Republic of Somalia should be negotiated by and agreed upon, by the Federal Government and the Federal Member States in accordance with the Constitution. However, this negotiations should take place within the context of legislation including Petroleum Law 2008.

### **14.3 PETROLEUM LAW 2008**

The 2008 Somalia Petroleum Law is problematic in that it proposes creating a super agency. This agency will handle signing oil contracts, overseeing the oil industry and, within these regulations, allow the agency to modify actual oil agreements. The problem with this is that the 2008 Petroleum Law basically takes all the powers and responsibilities from the Ministry of Petroleum and Minerals and gives it to an agency whose unelected members, for all intents and purposes, are completely outside of political oversight.

The Ministry of Petroleum and Mineral resources, which is the one of the government authorities, has revived to fulfil its mandate in the growth and development of extractive sector of Somalia which is legally acceptable to represent the country in order to prevent and control the challenges that can directly or indirectly affect this sector as had occurred in the past during the conflict.



The nation's mineral resources in the Petroleum Sector are managed by The Ministry of Petroleum and Mineral Resources (MPMR). The Law on Petroleum was enacted in 2008 with the purpose to confirm the sovereign rights of Somalia to produce, explore, develop and manage its Petroleum resources to provide maximum benefit to Somalia and its people. The central government has the responsibility for protecting these resources and distributing the income from them to the regions and districts of Somalia. The Parliament is to enact legislation for such distribution for the benefit of both producing and non-producing regions.

The nature and amount of income available to the FGS is dependent upon the fiscal terms in the petroleum agreements signed with companies that agreed to conduct the operations to explore for and produce petroleum. These fiscal terms vary substantially between whether the agreement was in the form of a Concession Agreement or a Production Sharing Agreement. The exact mechanism for revenue sharing between the FGS and FMS is largely dependent upon the fiscal system for allocation of revenue between the FGS and petroleum companies responsible for conducting exploration and production operations.

The institutions also engages in the extractive sector assisting and carrying out the following activities; Formulation of petroleum policy and strategic review, reviewing of the petroleum legal, regulatory and fiscal framework, strengthening the technical and commercial capacity of the federal government negotiation team related to petroleum negotiations strategic plan for the Ministry (2015-2030) (World Bank Group 2014).

## 15.4 PRE-1991 CONCESSION AGREEMENTS

Several Concession Agreements were signed by the government of the Democratic Republic of Somalia with oil companies. The fiscal system of the Concession Agreement includes Tax-Royalty approach, where the producing contractor pays royalties and tax to the country with the resources being extracted. The royalty and tax is the income to the Central Government.

In the past oil contracts between nations and oil companies would be called concession contracts where a government would give an oil company a concession to drill oil from that country. Generally the company would own the oil in the ground and the country would get revenue in the form of royalties and taxes. Now the most favoured contracts are called "production sharing agreements". In these agreements oil companies would be given the right to drill oil from a country and the profit from the oil that is retrieved from the ground is split between the oil company and the country itself. Usually the government's share ranges from 70% to 80%.



These oil and gas contracts vary greatly and there are a lot of different ways in which a country can absorb revenue. In general a country receives its revenue share via a modern production sharing agreement. Then, of course, the oil companies themselves are taxed on the revenue they receive from oil extraction within that country. Modern oil contracts also involve oil companies paying royalties or rent on the land or ocean area that they are contractually allowed to drill in with the option of giving up the unused areas that they chose not to drill in. This is done to gain income for the host country and to encourage a company to actually drill in all the areas that they are allowed to drill in. This is very important as the contractual provisions dictate that oil companies must invest and actually drill in areas they are given rights over. The reason for this is that some multinational oil companies have rights to drill in many countries and may choose to invest its resources and make money in one country and hold off investing in another country.

## 11.5 PRODUCTION SHARING CONTRACT

Production Sharing Agreement it's a mechanism for allocating production (Profit) between the state and the contractor. It was formulated to replace the Tax-Royalty approach of the Concession Agreements. Under the Petroleum Law 2008, the only means for lawfully recovering petroleum within the territory of the FRS is under a Production Sharing Agreement (PSA) with the central government.

Although Somalia did sign the Seismic Option Agreement with the Model Production Sharing Agreement, Soma now wants this Ministry to sign a new PSA contract without having access to the seismic data that Soma was contractually obligated to provide. It is advised to renegotiate the original contract, and not to sign any new proposed PSA without a new substantive consideration and/or concessions from Soma. This new signing can only happen after the Ministry experts gain full access to the processed seismic data and base their negotiating position on its results.

Soma, pursuant to the SOA, paid to conduct the seismic study. This study was completed. Soma had initiated the processing of the data. It appears that either the processing has been completed or the majority of it has been completed and reviewed to compel Soma to seek an enhanced contractual position. Soma, with knowledge of what this data shows, is now trying to renegotiate their contract with the Somali government.

Soma has the data and may have had data experts review the processed data. Once again, this could be the reason why Soma wants a more favorable profit margin on oil found in the deep waters as opposed to shallow waters. Soma is sitting on data that could inform the Somali government with enough knowledge to conclude where the oil is and how much is prospectively there. Somalia is entitled to the data because the data belongs to Somalia. The signing of any agreement on these terms without first reviewing the data competently would be a quite serious and even treasonous action in violation of the execution of fiduciary duty.



## 14.6 LEGAL FRAMEWORK AND CHALLENGES

Competing Contracts that are signed between the oil production enterprises and leaders of different political entities within Somalia, has resulted to cases of violent conflict enhanced by ambiguity and disputed property rights. For example, in February 2013, Petro Quest Africa signed a deal for a block with the regional administration of Galmudug. This overlapped with an offshore block that was also claimed by shell and it demanded federal government to take action to protect its property rights, thus raising violent (Manson 2013).

Several FMS have signed agreements with petroleum companies that conflict with areas previously granted by the Democratic Republic of Somalia. These contracts are in conflict with Articles 44 and 139 of the Provisional Constitution as well as the Petroleum Law 2008. The presence of these agreements creates a conflict of title to the petroleum resources. As such, it is impossible for Contractors dealing with the FGS to either enter into agreements for the sale of petroleum or to arrange security interests to support financing development. Additionally, these companies generally lack the technical capability and financial depth of the Contractors that signed the Concession Agreements.

However, the legal framework of Somalia does not help to clarify the situation that occurs concerning the exploration. It's evidenced in country's 2008 oil law that is sketchy and leaves greater room for diverse interpretation. The case that political actors have the right to sign oil production agreements still remains unclear. For example, President Abdullahi Yusuf Ahmed had officially granted regional administrations authority to enter into oil production, later President Sheikh Sharif Ahmed's senior adviser Abdullahi Haider proclaimed in October that all energy contracts signed by regional administration were null and void. Weak legal framework is as a result unclear regulations pertaining to investment and mineral rights in the extractive sector.

## 14.7 REVENUE AND FISCAL REGIMES

The management of revenue derived from petroleum production is both a risk and an opportunity. They can have a potentially negative impact on macro-economic stability for instance; the 'resource curse', by suppressing activity, investment and other segments of the economy, such as food production (Morgandi June 2008). The existing shared revenues can be used to support economic growth and development to attain sustainable development. Many countries such as Peru, Nigeria, Bolivia, Brazil, Ghana, Indonesia, Mexico and United States that engage in producing petroleum have adopted some form of revenue sharing. The main issue is whether some or all of the revenue should be dedicated to a permanent investment fund or allocated for expenditure. From the Federal Governments draft the issue is not clear, as the income is allocated 60 and 40 percent between the FGS and FMS respectively where the production is located. The Draft Bill does not also direct the use or investment of the revenue allocated both to producing and non-producing state. The FGS would clearly state the purpose for which the revenue allocated from the petroleum production could be utilized (Strachan 2014)



## 14.8 APPROACHES TO ADDRESS LEGAL FRAMEWORK CHALLENGES

Legal ambiguities and political points of contention need to be addressed urgently. This calls for collaboration with Somali legislators and elected representatives of regional states, in order to revive the country's legislation that regulates the exploitation of natural resources. This will eliminate loopholes and ambiguities that feature in Somali constitution. Federal government executive should find politically viable and binding solutions to the persons who should have the right to grant contracts and enter into legal agreement through signing of these contracts with extractive sectors. To effectively manage oil agreements with the international companies, Somalia must investigate first the best way to acquire and sustain technical expertise and administrative capacity for a sustainable development. Besides, creating a sovereign wealth fund for receiving all revenues accrued from exploration on Somali soil may be the best solution but policy makers should ensure the legal framework spells out the way the division of this revenue should be distributed among the different political entities. (Balthasar 2014). Local communities should be made aware of the companies, investors or partners that enter into the contract with the federal government on exploration. The procedure on how the company, investor or partner qualifies for the contract should be clear and legally well defined to avoid personal interests and ambiguity. This will help to avoid internal conflict within a community and between the contractors. Local communities should also be protected from any environmental hazards that may occur in the process of exploration, to avoid human health effects. Also relocation of people in the exploration area should be well defined in the constitution or in the laws that govern this sector; this will include compensation of the affected people or community and the settlement procedures. It's clear that, to minimize adverse exploration effects to achieve a sustainable development, the country must address first the political, legal and institutional ambiguities. As a matter of good practice for the governance of extractive industries to fairness and transparency in assignment of revenue is a requirement. Savings and investing part of the revenue before it is allocated to the FMS is necessary. For example, the FGS could establish a reserve fund, which could include a stabilization account, consisting of savings to act as a financial buffer to cushion the economy against volatility in petroleum revenue and to finance any unexpected shortfall in petroleum revenue during a financial year, and a future generations fund to provide savings for the long-term and support the welfare of future generations. The FGS could also use the Revenue Sharing Bill to set out the principles for investment of such funds and establish an investment committee, with the authority to appoint financial advisers, to oversee the fund. It appears that the only use of the income by the FGS and the MS is for funding current expenditures. While the savings funds as well as investment criteria and processes could be in another law, but logically this Bill would be the place for them.

In order to ensure transparency in the allocation of income from natural resources, the FMS or their designated representatives should have the right to conduct and audit of the Chest Fund and Federal Government Operation Fund.



## 14.9 ENVIRONMENTAL MANAGEMENT

Extractive sector has socioeconomic benefits to the local communities and economic growth to a country as general. On the other hand, it's associated with major environmental modifications including deforestation, siltation, water contamination and release of harmful gases. At the moment Somalia lack a comprehensive law on environment including omission within the constitution on environmental protection and management commitment. It would be crucial that environmental impact assessment and audit provisions are include in the ongoing review of governance instruments. This may include initial consideration and adoption of international standards like World Bank environmental provisions with eventual establishment of national environmental management authority.

## 14.10 CONCLUSION

Extractive sector plays a critical role in economic development of the country by contributing to foreign currency generation, creation of employment opportunity both locally and nationally. It also leads to improvement of basic infrastructures and services in newly identified mining sector in local, regional and national level.

Establishment of a large and diverse minerals industry in Somalia would underpin industrial development in the country. This would also improve human well-being through creation of employment to the Somali citizens in line with gender equality principle. Streamlined extractive sector would also contribute to reduction of poverty, and the establishment of a vibrant and profitable private sector based mining industry. Such improvement in the sector would also help in the country achieving a comprehensive system that would ensure that community benefit from the minerals and promote sustainable utilisation.

To achieve change in the sector, the Somali government would have to focus on creating the necessary enabling legal, regulatory, fiscal and institutional environment for the private sector investment in extractive industry. These would be enhanced by strengthening the ability to effectively carry out its regulatory functions. It should also ensure these changes are made available to the private sector investors in the extractive sector. The government should also carrying out joint geological mapping and maintain up-to- date mineral resource data base that is reliable. At the same time it should also provide extension services to artisanal and small- scale miners with a view to ensuring safe and environmental sound mining practices. The government should also improve the extractive sector environment by facilitating the development of adequate infrastructure for the mining development.

At the national and federal level, there is need to ensure adequate capacity building to handle challenges of extractive sector. At the same time creating awareness among community members in order to ensure order, manage expectation and ensure proper channels of correct information are known. Awareness of the socio-economic status and development needs of respective community should be used in improving livelihood of local community. The system should ensure of securing the rights of the local community by protecting them from investors both in terms of livelihood and protection of local environment. Establishment of local institutions in form of local committee at grass root level to act as organs of engagement in local mineral extraction are considered to be crucial in conflict mitigation.



## 15. REFERENCES

Abdullahi Haider PhD. & Abdi A. Hussein (January 2016). The Last Hydrocarbon Frontier Region in East Africa: Geographical Distribution of the Underexplored Potential Hydrocarbon Basins of Somalia.

Adam Smith International (2014). Needs Assessment for the Development of Somalia's Extractive Industries. A report presented to British Government's Department for International Development.

Africa Confidential (2013b) 'The statelets of the nation', 24 January.

Ali, MY; 2009, Geology and coal potential in Somaliland. Int. J. Oil, Gas and Coal Technology, Vol.2, No. 2

Auty, R. (2001). Resource Abundance and Economic Development. Oxford:

Balthasar, D.( 2014.) Oil in Somalia. Mogadishu: Heritage Institute for Policy Studies

BP (2012) BP Statistical Review of World Energy, June 2012. BP: London

Brigitte. (2013) "Energy GEPS Repot-Sub Saharan Africa Somalia."

Ehlers-Fliege, B., 2013 Sub-saharan Africa, Somalia. Energy critical technical information, GEPS, Reports

Federal Government of Somalia, 2014. Ministry of Petroleum and Minerals Resources. Somalia Oil and Gas Conference. London

Federal Government of Somalia US-Africa Summit National Statement, 2014.

Kamenov, B. & Petrov, P. (2012). Unidentified hydrothermal mineral occurrences in Northern Somalia – first mineral thermometry study. Geochemistry, Mineralogy and petrology- Sofia 49, 1-16

Lakhani, S. (2013). Extractive Industries and Peace building in Afghanistan: The Role of Social Accountability, Special Report, United States Institute of Peace.

Le Billon, P. (2008). Resources for Peace? Managing Revenues from Extractive Industries in Post-Conflict Environments, Working Paper Series No. 167, Center on International Cooperation, Political Economy Research Institute.

Manson, K. (2013) 'Somalia: Oil thrown on the fire', Financial Times, 13 May.

Mallory, G. (2013) 'Somaliland: Government Confirms DNO International Production Sharing Contract', Somaliland Sun, 23 April.

Mbugua, J.K. (2013). Drivers of Insecurity in Somalia: Mapping Contours of Violence, Occasional Paper, Series No. 4, International Peace Support Training Centre, Nairobi

Morgandi, M.( 2008.) Extractive Industries Revenues Distribution at theSub-National Level the experience in Seven Resource-rich Countries. New York: Revenue Watch Institute

News Bank (2008) 'Somali president approves oil exploration project in Puntland', 1 May.

Owuor, V.O. (2014). Investing in Stability: The Case for Somalia, Business, Peace and Sustainable Development, No. 3, pp. 115-130. Oxford University Press.

Ross, M. (2004). What Do We Know about Natural Resources and Civil War? Journal of Peace Research, 41(3), 337–356.

Shepherd, B. (2013) Oil in Uganda – International Lessons for Success. Chatham House Briefing Paper. The Royal Institute of International Affairs:London.

Strachan, A.L.(2014) Oil and gas revenue sharing (GSDRC Helpdesk Research Report 1123). Birmingham,UK: University of Birmingham

Sutherland.( 2000.) The conservation handbook.Research,Management and Policy. Blackwell Science,

United Nations and European Union (2012). Toolkit and Guidance for Preventing and Managing Land and Natural Resources Conflict, Extractive Industries and Conflict.

1World Bank Group(2014) Energy & Extractives Global Practice. Washington ,DC USA

Yager, Th. (2011), the mineral industries of Djibouti, Eritrea, Ethiopia, and Somalia. US Geological survey minerals yearbook