Towards Optimal Exploitation of Salt from the Keta Lagoon Basin in Ghana

Third World Network-Africa

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Foreword

Ghana has the best endowment for and is the biggest producer of solar salt in West Africa. The bulk of the production and export comes from artisanal and small scale (ASM) producers. This is a research report on struggles between a large scale salt company and some communities around the Keta Lagoon in Ghana. At the centre of the conflict is the disruption of the livelihoods of the communities by the award of a concession to a foreign investor for large scale salt production, an act which has expropriated what the communities see as the commons around the lagoon where for generations they have carried out livelihood activities which combine fishing, farming and salt production.

The Keta Lagoon is the second most important salt producing area in Ghana and the conflict, in which Police protecting the company have shot some locals dead, is emblematic of the wider problem of the status of ASM across Africa with many governments even when faced with the huge potential of ASM avoid offering support to these predominantly local entrepreneurs and reflexively choose to support large scale, usually foreign, investors. Historically, minerals like salt have been of little interest to these investors. What is happening around the Keta Lagoon underlines the fact that more and more minerals are attracting the interest of large scale investors with the prospect of increased dispossession of rural communities and ASM producers.

The ASM sector is an important source of livelihoods for millions of people across Africa. It employs more than the dominant large-scale mining sector and most of the value it creates is retained in national economies unlike that from the large scale sector. It is however, the ugly duckling of African mining, marginalised and discriminated against by African states with its impacts highlighted and prospects understated. The Africa Mining Vision agenda offers strong support for the ASM sector and enjoins African governments to treat it with no less attention than is currently given to the large scale sector. The attainment of that vision will require much more attention and support for the ASM sector than is currently the case in mineral policy advocacy in Africa.

The analysis of the conflict around the Keta Lagoon and how to optimise the salt production potential of the area was commissioned by TWN-Africa to contribute to our understanding of a key issue in the AMV agenda.

TWN-Africa is grateful to Alhassan Atta-Quayson for conducting the research and preparing the report.

We also thank the Open Society Initiative for West Africa (OSIWA) for their funding support for the project.

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List of Abbreviations

AMV	Africa Mining Vision
ASM	Artisanal and Small-scale Mining
ASSM	Artisanal and Small-scale Salt Mining
AU	African Union
AUC	African Union Commission
CMV	Country Mining Vision
CSOs	Civil Society Organisations
ECOWAS	Economic Community of West African States
EIA	Environmental Impact Assessment
EMDP	ECOWAS Minerals Development Policy
EP	Environmental Permit
EPA	Environmental Protection Agency
FC	Forestry Commission
FPIC	Free, Prior and Informed Consent
GEPA	Ghana Export Promotion Authority
GEPC	Ghana Export Promotion Council
GoG	Government of Ghana
GSGDA	Ghana Shared Growth and Development Agenda
GSS	Ghana Statistical Service
LI	Legislative Instrument
LSM	Large-Scale Mining
LSSM	Large-Scale Salt Mining
MC	Minerals Commission
MCE	Municipal Chief Executive
MLNR	Ministry of Lands and Natural Resources
MMDAs	Metropolitan, Municipal and District Assemblies
MoTI	Ministry of Trade and Industry
PEF	Private Enterprise Foundation
PSI	Presidential Special Initiative
SMEs	Small and Medium-scale Enterprises
TWN-Af	Third World Network – Africa
UNECA	United Nations Economic Commission for Africa
WAGL	West African Goldfields Limited
WRC	Water Resources Commission

Executive Summary

Since 2013, there have been frequent demonstrations and agitations by local Artisanal and Small-scale Salt Mining (ASSM) winners and ordinary citizens in the Ketu South Municipality of Ghana over the salt mining operations of Kensington Industries of Ghana (now known as Seven Seas Ltd.) at Adina, Agavedzi, Blekusu and other adjoining communities within the Municipality. Some of these demonstrations and agitations have been violent and in some cases led to fatalities. For example, in December 2015, a demonstration at Kpedzakope and Adina led to several injuries (some severe) sustained by the indigenes and the destruction of properties belonging to the company (including an excavator and a tipper truck which were burnt by the demonstrators). Recently, in March 2017, there was another demonstration around the premises of Kensington (now Seven Seas) over the arrest of four women by the police for collecting salt within the company's concession. Police response to the demonstrations led to the death of one young man (through gunshot) and severe injuries sustained by two others who "were hit by stray bullets from the Police" (Akpablie, 2017).

Concerned about these continuing and evolving challenges in the salt sector (especially at the Keta Lagoon Basin), Third World Network–Africa commissioned a study to examine the policies governing the salt sector; and to evaluate the experiences of communities in and around the Keta Lagoon. As part of its contribution towards a mining sector relevant to sustainable development, this study looks closely at communities affected by the increasing presence of LSM companies. The study has been cognizant of emerging regional and continental mining policy frameworks supportive of a more inclusive and participatory mining regime. Efforts by the Government of Ghana to further domesticate principles in those frameworks is also known. The Government is developing a Country Mining Vision (CMV) which is a national version of the Africa Mining Vision (AMV) adopted by Heads of State and Governments in February 2009.

The main goal of the study was to examine the policies and regulatory instruments that govern the salt sector and evaluate the experiences of communities in and around the Keta Lagoon, with greater focus on the concession of Kensington Industries Limited. Ultimately, the study aims to suggest ways of ensuring the optimal exploitation of salt production in the country (particularly the Keta Lagoon Basin and its catchment areas). The specific objectives of the study are:

1) Provide an overview of the salt industry in Ghana and the Keta Lagoon Basin;
2) Examine policy and regulatory instruments that govern the salt sector in Ghana;
3) Understand issues of gender, constituency and levels of organisation in affected communities;
4) Examine evolving regime concerns, challenges and impacts on communities around the Keta Lagoon where large-scale salt mining has been introduced (especially where Kensington Industries Limited operates); and
5) Explore how to ensure optimal exploitation of salt production from the Keta Lagoon.

Ghana's large-scale dominated approach to the development of the salt industry without appropriate provisions for the livelihoods of the indigenes and ensuring environmental stewardship of salt-producing areas has several concerns (in particular sustainability of the industry as demonstrated by resistance to Kensington's operations). The approach betrays prescriptions of emerging regional and continental mining policy regimes (such as AMV and EMDP) that emphasize greater focus on ASM. One of such prescriptions is the AMV's pursuance of "a mining sector that harness the potential of artisanal and small-scale mining to stimulate local/national entrepreneurship, improve livelihoods, and advance integrated rural social and economic development." Further, the approach betrays recommendations contained in the Master Plan for Salt Development in Ghana (1991) which recognizes and affirms the legitimacy of thousands of local salt producers in various salt-producing areas in the country. Any approach that sidelines small-scale producers risks having in its wake a protracted conflictual relationship between ASSM and LSSM operators, as has been the case in gold mining communities with attendant problems of concession encroachment.

Finally, the manner in which mining leases are granted with little or no real consultation with affected communities and among state agencies, needs a rethink. Artisanal miners are often most affected by the grant of such large-scale mining leases as it invariably disposes them of their livelihoods. This clearly does not bode well for the government's commitment to a transparent and accountable governance for the exploitation of mineral resources. Weak institutional capacity and ineffective environmental impact assessment procedures have meant that affected people are not adequately compensated and on time as required by those procedures. In the case of Kensington, the company insists that it owes no compensation to anyone and has since not compensated most of the people affected by its operations, despite visible significant livelihood effects suffered by people within and around the company's catchment areas. In view of the above, the study recommends an ASM-dominant approach to developing Ghana's salt industry. This deals effectively with livelihood concerns that characterize granting of large-scale mining leases.

1. Introduction

a) Background to the Study

Local Artisanal and Small-scale Salt Mining (ASSM) workers in the Ketu South Municipality of Ghana and other citizens in the area have demonstrated and agitated against Kensington Industries' salt mining operations since 2013. (See Box 1 for a brief historical overview of the company's operations at Adina, Agavedzi, Blekusu and other adjoining communities within the Municipality.) Some of these demonstrations and agitations have been violent and fatal. In December 2015, a demonstration at Kpedzakope and Adina led to several injuries sustained by the indigenes and the destruction of properties belonging to Kensington Industries (including an excavator and a tipper truck burnt by the demonstrators). Recently, in March 2017, there was another demonstration near the premises of Kensington over the arrest of four women by the police for collecting salt within the company's concession. Police response to the demonstrations led to the death of one young man (through gunshot) and severe injuries sustained by two others who "were hit by stray bullets from the Police" (Akpablie, 2017).

The communities claim that their demonstrations and agitations against Kensington's operations over the past years are directly related to the manner in which the government granted Kensington its mining lease and other required permits. Their protests also bring attention to the negative consequences of the company's operation in the communities. As in several other mining-affected communities, most of the local people affected by the company's operations were not duly consulted. Further, they do not receive prompt payment of adequate compensation for the adverse consequences suffered, as required by the Constitution and the mining laws and regulations. This is despite established procedures that mandate state agencies to ensure that people whose livelihoods stand to be affected in any way must be meaningfully consulted and adequately compensated for any negative impact prior to the commencement of mining activities. Kensington pointed out during an interview that there were no meaningful economic activities taking place on the concession when they obtained it and they are therefore not liable for compensation. Further, the local people within the catchment areas of Kensington's operations have been severely affected by the unexpected use of underground water resources (brine of higher concentration) by the company for its production activities. Such an approach significantly affects the water table in the area. It is reported that there has been an increase in the salinity of water within the company's catchment communities as well as severe water shortages.

BOX 1: BRIEF HISTORY OF SEVEN SEAS SALT LIMITED'S OPERATIONS IN GHANA

Kensington Salt Industries Limited formerly Seven Sea Salt Limited, incorporated in Ghana under the Companies' Code 1963 and certified to commence business in March 2009, identifies as a British Conglomerate that deals in salt and salt-related activities. It is related to one Nigeria-based M/S Royal Limited which imports salt from Namibia, Australia and Brazil for further processing and sale within the West African sub-region.

The company acquired part of its current concession from West African Goldfields Limited (WAGL) and obtained approvals from the Minerals Commission and the Ministry of Lands and Natural Resources for its acquisition of WAGL's concession. Its new lease granted by the Ministry took effect from 29th December, 2011 till 28th December 2026. The company currently holds 7,299.41 acres of land in its concession comprising 2410.56 acres (Adina concession); 3593.92 acres (Agavedzi and Blekusu concession); and 1294.93 acres (additional Adina concession for salt field expansion).

Kensington has held some meetings with chiefs and elders/opinion leaders of communities affected by its operations to find a way to manage the discontent among the masses over its operations. However, the people most affected by the company's operations (especially local producers) have been excluded from such meetings. Consequently, the success of this approach has been very limited, as agitations, demonstrations and resistance against its operations grow.

Its operations were suspended in June 2017 following a demonstration in which the company's entire underground water pumping infrastructure was deliberately destroyed

The concerns of ASSM workers and ordinary citizens in the Ketu South Municipality are comparable to those of other communities affected by mining activities throughout the country. Despite the importance of ASSM activities on the economy of Ghana, through job creation in rural communities (where agricultural jobs are increasingly unattractive and non-agricultural jobs fast dwindling), state policy and support towards transforming the sector has been rather poor. As in many mining-affected communities, Large-Scale Mining (LSM) often fails to deliver expected local developmental benefits through job creation and increased demand of locally produced goods and services. LSM operations tend to employ more capital-intensive methods of production that create fewer jobs than promised by the company or as expected by the local people. The situation is worsened by the fact that most of the local people rarely have the skills required to gain employment in LSM operations. This has, therefore, led to heightened discontent among local people in relation to LSM operations in many mining areas in the country (Akabzaa and Darimani, 2001; Bank of Ghana, 2003). The resistance by local people against mining activities (especially in the salt sector) often leads to protracted conflicts that hurt the cause of the company eventually. The case of Ada where Large-Scale Salt Mining (LSSM) operators took over large swathes of the Songor Lagoon but failed in their operations at the face of strong resistance by the local people is worth noting.

Concerned about these continuing and evolving challenges in the salt sector (especially at the Keta Lagoon Basin), Third World Network – Africa[1] commissioned a study to examine the policies governing the salt sector. The study was to evaluate the experiences of communities in and around the Keta Lagoon affected by the increasing presence of LSM companies. Emerging regional and continental mining policy frameworks are supportive of a more inclusive and participatory mining regime. Accordingly, Ghana is making efforts to further domesticate principles in those frameworks. The Government of Ghana is developing a Country Mining Vision (CMV) which is a national version of the Africa Mining Vision

[1] Earlier, TWN-A and African Challenge organized a seminar for the affected communities to share knowledge and build capacity of ASSM in the area of governance of the mining sector. The author was a resource person at the event and had the opportunity to acquaint himself with evolving developments at the Keta Lagoon Basin.

(AMV) adopted by Heads of State and Governments in February 2009. The overarching goal of the AMV is to create circumstances that support a "transparent, equitable and optimal exploitation of (Africa's) mineral resources to underpin broad-based sustainable growth and socio-economic development"[2] (emphasis added). The government is also committed to the ECOWAS Minerals Development Policy (EMDP) which aims at "harnessing mineral resource capital to facilitate sustainable economic growth and integrated socio-economic development in the region."[3] Both policy frameworks have developed implementation plans that commit member states to a set of actions related to the realization of the policy objectives.

b) Objectives of the Study

The main goal of the study was to examine the policies and regulatory instruments that govern the salt sector and evaluate the experiences of communities in and around the Keta Lagoon, with greater focus on the concession of Kensington Industries Limited. Ultimately, the aim of the study was to suggest ways of ensuring optimal exploitation of salt production in the country (particularly the Keta Lagoon Basin and its catchment areas).

The specific objectives of the study are:

1) Provide an overview of the salt industry in Ghana and the Keta Lagoon Basin;
2) Examine policy and regulatory instruments that govern the salt sector in Ghana;
3) Understand issues of gender, constituency and levels of organization in affected communities;
4) Examine evolving regime concerns, challenges and impacts on communities around the Keta Lagoon where large-scale salt mining has been introduced (especially where Kensington Industries Limited operates); and
5) Explore how to ensure optimal exploitation of salt production from the Keta Lagoon.

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[2] Africa Mining Vision, African Union, February 2009.

[3] ECOWAS Minerals Development Policy, ECOWAS Commission, May 2011

The report builds on a research work plan submitted earlier and begins with an introductory chapter. The next chapter provides an overview of the salt industry in Ghana, highlighting key areas of salt production in Ghana, existing forms and patterns of production structure, forms of organization among Artisanal and Small-scale Mining (ASM) operators and the role of women in the salt industry. Chapter Three locates and describes the Keta Lagoon Basin, identifying and discussing the various uses of the lagoon, management and environmental stewardship of the lagoon, concessions granted to LSM companies in and around the lagoon recently, and points of conflicts that have emerged following the entry of LSM companies. Chapter Four discusses the Government's policy approach and regulatory regime applicable in the salt sector and identifies gaps between the national policy on one side and regional and continental policy frameworks on the other side. The next chapter identifies and discusses concerns and challenges associated with the current government position and policies in the salt sector, highlighting emerging conflicts and consequences for jobs and livelihoods. The penultimate chapter explores the importance of ASM-dominant approach in the salt sector, especially in the areas of local content, linkages potentials, inclusivity and sustainability. The conclusions and recommendations follow in Chapter Seven.

c) Methodology

The study involved two main components: a desk review of existing secondary materials and field work. The desk review entailed a thorough review of literature on policies, practices and empirical findings on salt mining in Ghana and across the continent. The legal and institutional frameworks that govern salt mining activities in the country were also assessed to appreciate emerging approaches to governing the salt mining sector in the country. The essence of this component of the research was to examine developments in Ghana within a context of other developments across the continent, with special regard to emerging regional and continental policy frameworks.

The fieldwork component entailed visits to Ketu South and Keta Municipalities to conduct interviews with key stakeholders and observe reactions to the emerging trend of increasing large-scale salt mining activities in and around the Keta Lagoon. The stakeholders included, officials of

Kensington Industries Limited, principal officers of Ketu South and Keta Municipal Assemblies, artisanal salt miners and representatives, local authorities, representatives of community-based organizations and traditional authorities. Finally, efforts were made to interact with state officials in relevant Ministries, Departments and Agencies (such as the Minerals Commission and the Environmental Protection Agency) but only a handful of such officials availed themselves to be interacted with. The interviews and interactions were designed and conducted to generate additional relevant information to address the study objectives.

2. The Salt Industry in Ghana

"Despite the allure and status of gold, salts were the most important commodities in parts of pre-colonial Africa. Trade in salts was the most important regional commercial activity in several areas, including the Sahel and the Sahara, especially the Western Sahara, central Sudan, (west of Lake Chad) and the northern section of the western Rift Valley and its plateau borderlands, and the Great Lakes area around the modern border of the Democratic Republic of the Congo and Uganda" (UNECA and AU, 2011).

a) Introduction

Ghana, endowed with minerals such as gold, diamonds, manganese, bauxite, salt, limestone, sand and clay, has a long history of mining spanning several centuries. This history is dominated by gold mining. Though gold has relatively less local developmental benefits, it has received the lion's share of investments in the sector and dominates mineral production and export revenues in terms of value. It is therefore highly prioritized in the country, often to the detriment of other minerals with greater developmental benefits such as salt. For well over a century now, there have been active mechanized large-scale gold mining activities in the country. Following mining reforms in the 1980s, there has been renewed interest in the traditional minerals sector (especially gold). This has led to the gold sector receiving a lot of attention and support in terms of policy and incentives. Other minerals with greater local developmental benefits, such as salt, have received relatively little policy support. Gold, bauxite, manganese and diamonds (so-called traditional minerals) have long been the focus of state policy in the mining sector because of their contribution to government revenue.

Over the past decade, however, the state has shifted focus and some attention to non-traditional minerals in response to the challenges associated with the traditional minerals sector. Atta-Quayson (2016) identifies poor fiscal regime (neutral or mildly regressive), weak linkages, environmental degradation and growing public discontent as some of those challenges.

Also, the discovery of oil in commercial quantities in 2007 and its subsequent commercial production in 2010, has renewed interest in non-traditional minerals; in particular salt. Salt together with cowries, are the minerals with the longest history of production in Ghana, and probably across the continent, for their role as a medium of exchange in pre-colonial Ghana.

In 2007, Ghana discovered oil in commercial quantities and began production in 2010. Since then, there have been other discoveries of oil and new oil-producing fields have commenced production. These developments have important implications for the salt sector in the area of linkages between salt mining in the country and an emerging petrochemical industry which relies substantially on salt. Undoubtedly, there has been increased interest in and focus on the salt sector not only because of the emerging oil industry. The potentials presented by the West African sub-region (where regional demand – even excluding that of Nigeria – outstrips regional supply by Ghana and Senegal) also accounts for the increased interest. Neighbouring Cote D'Ivoire continues to make strides in her oil sector with new discoveries that raise the stakes in the Ghanaian salt sector. The state is therefore expected, in these circumstances, to work closely with key stakeholders (particularly local salt producers) in the industry to ensure that the sector is modernized to take advantage of the current tide which is in favour of the salt industry. The minerals and mining policy makes a strong point about the role of salt in supporting other important sectors of the economy, such as the emerging downstream local petrochemical industry, proposed integrated bauxite-alumina industry, agriculture, food, beverage, water and textiles sub-sectors (See Box 2 which elaborates on the uses of salt and the opportunities for a vibrant salt sector in Ghana).

BOX 2: ECONOMIC IMPORTANCE OF SALT

Salt is a natural mineral composed of two elements: sodium and chlorine, usually in white cube-shaped crystals. It naturally occurs in many parts of the world and has been mined for centuries. In recent times, mechanized salt infrastructure has been employed in the production of salt on a large scale. Yet, a significant proportion of global salt output is produced by artisans who basically "collect" the salt when it naturally forms. Historically, salt has mainly been used either to flavor or preserve food. In many parts of Africa, especially West Africa, a substantial amount of salt continues to be used for this purpose (especially meat preservation).

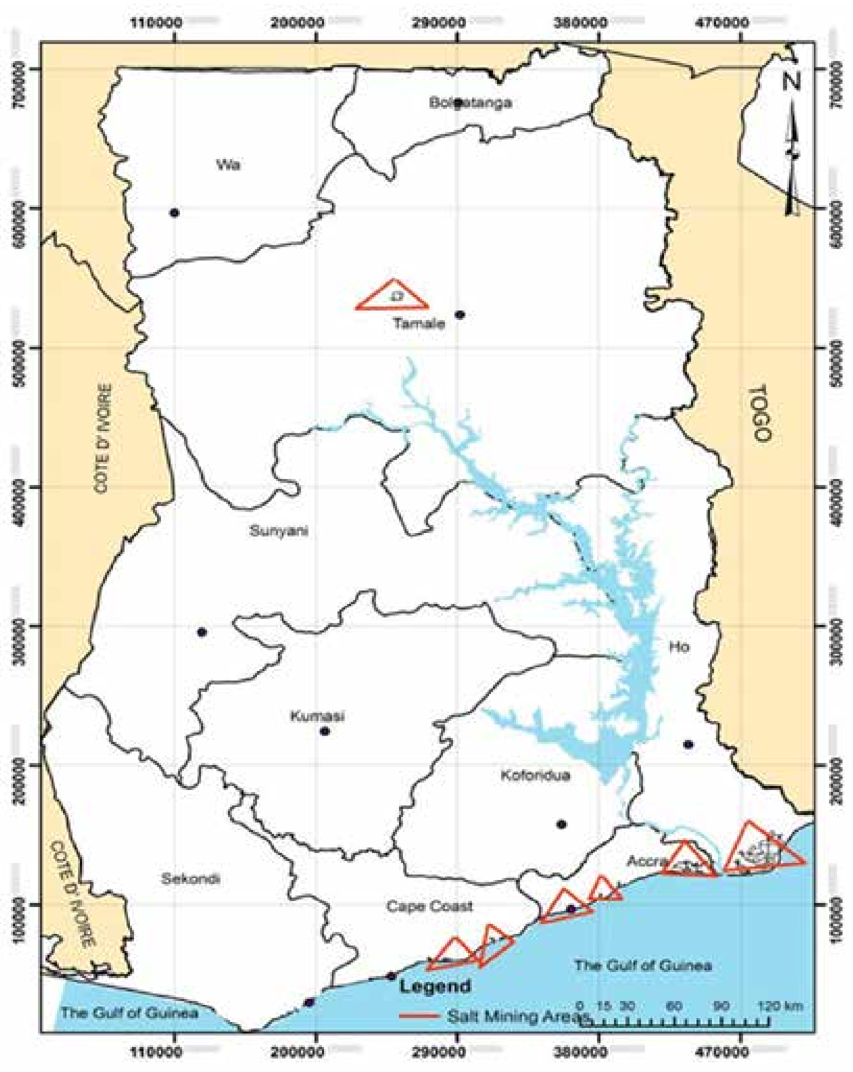
Around the world, salt has emerged as a major input in many sectors of the economy. By far, most of the salt produced is used as inputs in the production of chemicals. In developed countries, the industrial sector (such as petroleum and hard minerals industries) accounts for more than two-thirds of all salt produced. Other sectors where salt is used as inputs include the agricultural sector (where salt is used as part of a nutritionally balanced diet for animals and features in the production of fertilizers), manufacturing of paper (where salt is used to produce caustic soda and chlorine to process wood fibers and bleach pulps), conditioning of water (where salt is used to soften the water), highway de-icing and human consumption in food production.

Source: http://www.chemistryexplained.com/Ru-Sp/Salt.html

a) Major Areas of Salt Production in Ghana

Along the 500km coastal front of Ghana, minimum conditions for the production of solar salt exist. Yet, there are some areas where salt production is more effective due to the prevalence of supportive climatic conditions for solar salt production. These areas include Ada/Songor, Elmina, Keta, Ketu, Nyanyanu, Ningo/Prampram, Weija, Apam, Mankessim, and Shama Ahanta. In all these areas, there are lagoons and other water bodies where brine is initially held and concentrated before being transferred into various salt pans for the production of salt. Popular lagoons and water bodies around which salt production takes place include the Ada Songor Lagoon, Keta Lagoon, Densu Delta area, Nyanya Lagoon, Amisa Lagoon (Mankessim) and Amwin/Benyah Lagoon. In other less popular areas such as Wankam Beach near Biriwa in the Central Region, artificial concentration ponds have been created for salt production, demonstrating that salt production can be expanded to other areas beyond the areas where they are popularly noted. Figure 1 shows the major areas of salt production in Ghana.

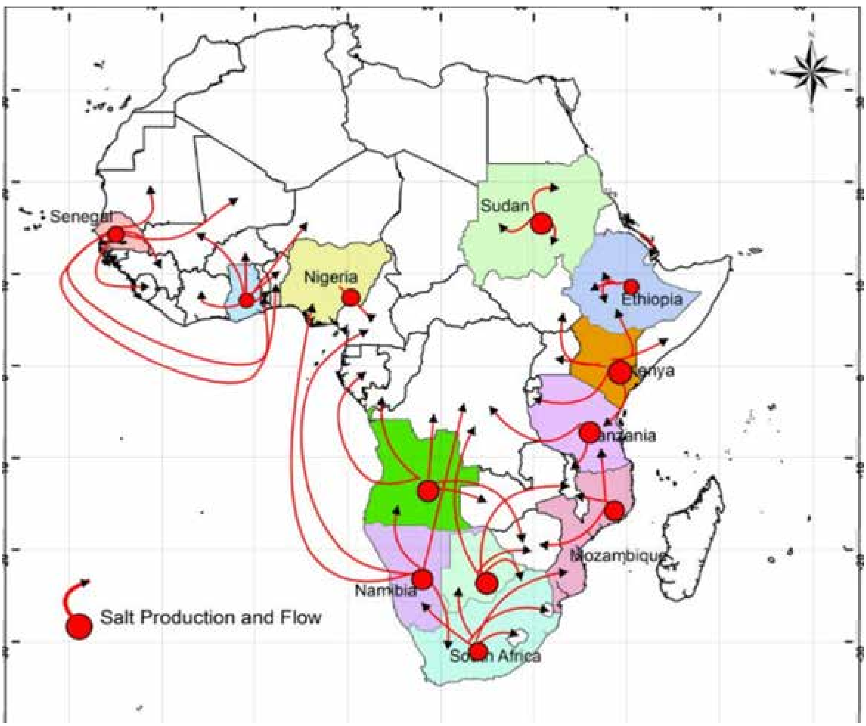
Figure 1: Map of Ghana Showing Major Areas of Salt Production



Source: Mohammed Sanda, University of Education, Winneba

Ghana is one of the ten key salt-producing countries in Africa (see Figure 2) and the sector is very important to the livelihoods of hundreds of thousands of people in the coastal communities where the commodity is produced. The country has a long history of salt mining, which dates back several centuries. Within the Western and Central African sub-regions, Ghana is the largest salt producer with Senegal a distant second. In fact, Ghana and Senegal are the main salt-producing countries in the entire Western and Central Africa sub-region. In pre-colonial Ghana, salt was one of the most important export commodities along with gold and cowries. Historically, salt played a very important role in the organization of lives and societies in the communities where the mineral was produced, serving as a medium of exchange at some point in time.

Figure 2: Production and Trade Flow of Salt across the African Continent



Source: Adapted from Mannar and Yusufali (2013)

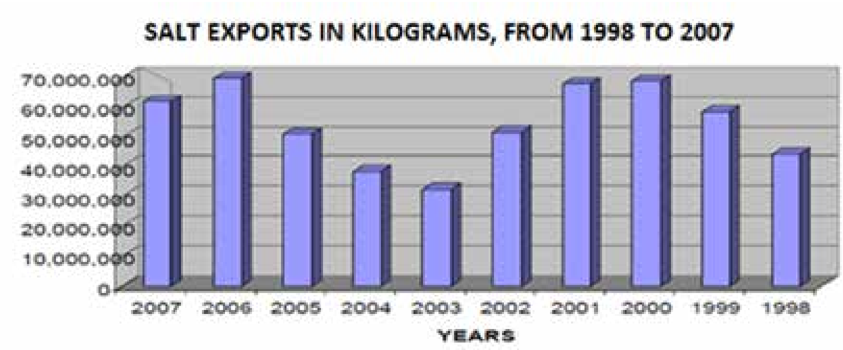
b) Production and Export of Salt

Currently, national production levels are estimated to be around 250,000 metric tonnes annually; but the potential exists for increasing this to between 2-3 million tonnes[4] (GEPC, 2009). These estimates must be viewed with caution as the country has no reliable statistics on activities of salt production. This is mainly because the most dominant segment of the industry, the ASSM, is largely informal. The ASSM operators hardly keep records of their activities or submit regular returns to the Minerals Commission responsible for collating production statistics on the mining sector. In the first place, they are not officially recognized; and this could be viewed as part of the problem in the sector. If they were to be recognized, that could provide a window for some information to be collected from them. Further, the cooperative unions somewhat recognized by the Minerals Commission also do not file returns regularly. Nonetheless, licensed medium to large-scale companies keep some records and submit regular returns to the Minerals Commission. Available national statistics on salt production are therefore estimated from what is obtained largely from licensed companies and some salt cooperatives. They must therefore be used with some amount of caution.

The Ghana Export Promotion Authority (GEPA, formerly the Ghana Export Promotion Council – GEPC was another source of information on the salt sector as relates to its export. As shown in Figure 2, Ghana exports salt, largely to West African countries (such as Niger, Burkina Faso, Cote D'Ivoire, Togo, Benin, Gabon and Mali). Figure 3 shows the quantities of salt (in kilograms) exported to these countries between 1998 and 2007 while Figure 3 shows quantities exported to various countries in the year 2007. Salt exports for the period ranged between a low of 30,000 metric tonnes in 2003 and a high of almost 70,000 metric tonnes in 2006. In terms of destination (as shown in Figure 4), three countries (namely Niger, Burkina Faso and Cote D'Ivoire) dominate.

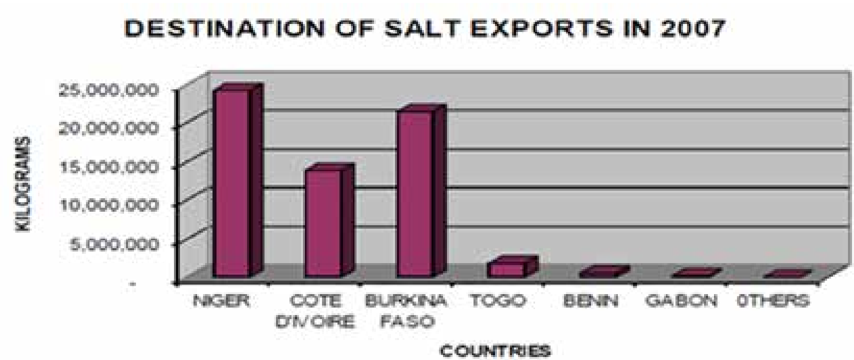
[4] Global production of salt hovers around 200 million tons annually, with the United States of America and China contributing about a third of the world output. The United States produces about 45 million tonnes while China produces 30 million tonnes annually.

Figure 3: Salt Exports by Ghana from 1998 to 2007***



Source: Ghana Exports Promotion Authority

Figure 4: Destination of Salt Exports from Ghana in 2007***



Source: Ghana Exports Promotion Authority

***Various efforts by the author to obtain recent data from the Ghana Exports Promotion Authority (GEPA) proved futile.

The significance of the salt industry and its contributions to the economy of Ghana can also be seen in the potential of the sector in creating employment. Unfortunately, like production, statistics on employment in the sector is scant and unreliable. There is no information on the number of salt winners in the country. This is largely because of the seasonal nature of the activity. The more organized segment of the sector, which consists of associations (or cooperatives) and family businesses (or sole proprietorships), is estimated to account for about 1,000 workers, a figure which increases substantially during harvest (GEPC, 2009). Medium- and large-scale companies with licenses employ about 2,000 people (Quashie and Aggey, 2013).

c) Methods of Production and Forms of Organization among ASSM Operators

i. Methods and Patterns of Production

Salt production in Ghana is dominated by solar evaporation of brine extracted from the sea (in most cases) and sometimes from the underground layers of the earth (usually in and around lagoons). Generally, underground water sources have greater brine concentration than sea water (3–5 % brine concentration). Yet, most producers (especially ASSM operators) rely on sea brine largely because of the ease (financially) with which sea brine is accessed. Sea water is usually extracted by gravity, or flows freely into concentration ponds, or is pumped in some cases. Extraction of underground brine generally requires pump machines and is a relatively more expensive approach to production. This method is therefore used largely by LSM companies such as Kensington in the Ketu South Municipality.

Though extraction of underground brine is more expensive, its greater brine concentration makes it more productive than sea brine. However, reliance on underground brine could also have major consequences on the water table, as is the case at Ketu South where communities complain of increased salinity and water shortages in their localities. Once the source of brine for salt production is determined (usually from the sea), salt production follows a two-step approach. The brine is first transferred to concentration ponds and later distributed into salt production pans where salt crystalizes from highly concentrated brine. Crude salt produced is washed of impurities before being transported to storage facilities (in the case of ASSM for bagging) or a processing plant (for LSM companies with processing facilities). Both ASSM and LSSM are obliged to iodize the salt before selling it, especially those for human consumption.

The solar evaporation approach to salt production relies heavily on climatic conditions and production usually takes place during the dry season when temperatures are high and the weather relatively dry. In the coastal regions of Ghana, where conditions for solar salt production exist, there are two rainy seasons (major and minor). Salt production takes place outside the rainy seasons and spans seven months, subject to changing climatic conditions. Even though during dry seasons minimum conditions for salt production exist, there are variations in climatic conditions during the dry seasons and across coastal regions that affect productivity. In view of the variations in conditions across regions, the Ada Songor area is understood to be the most productive with greater production potential than other regions.

Despite relatively easy production methods, the salt industry has consistently been producing substantially below its potential. Various challenges have been identified as responsible for the historical poor performance of the industry. Papazafiropoulos and Yeboah-Konadu (2008) summarize challenges that confront the salt sector:

i. The land tenure system in the producing communities is very complex and has served as a major disincentive to potential investors;
ii. The infant salt industrialists in the country have a serious handicap in the areas of finance and technology, especially, and since the industry is very capital intensive, its growth has been stunted; and
iii. The lack of appropriate infrastructure in the salt producing areas is also a major constraint to developing the industry.

These challenges notwithstanding, historically the salt industry has suffered from neglect by the government as the industry has never received the same attention devoted by public policy and state institutions to other minerals, particularly gold. The lack of support and attention to the salt sector by state institutions (particularly the Minerals Commission) can be explained by the Commission's heavy focus on the attraction of foreign direct investment to develop the country's mineral resources (which for profitability rather than developmental purposes has been historically interested in the gold sector).

ii. Structure of the Salt Industry and Forms of Organization among ASSM Operators

There are three main categories of salt producers in Ghana (GEPC, 2009). The first category comprises salt winners who live within the vicinities of major lagoons and collect crystallized salts after evaporation. These winners operate as individuals, but sometimes as loose groups. They were described as "chance entrepreneurs" in the categorization by GEPC (2009). The category had no acreage dimension in the nomenclature, but it can be deduced that producers in the category operate on lands of up to five acres. In view of this, it is important to note that not all producers in this category are "chance entrepreneurs" as erroneously described. Such a description gives an inaccurate impression that salt winners in this category are difficult to identify and therefore not worth engaging. At Adina in the Ketu South Municipality, for example, some producers who fall into this category were met and found to be serious in their occupation, having been in production for decades. They are identifiable and worth engaging by the relevant authorities. The Environmental Health Departments of relevant Metropolitan, Municipal and District Assemblies (MMDAs) are already in touch with many of these producers regarding monitoring iodization of their produce. The second category comprises micro and small-scale producers with right or access to 5–40 acres of land often represented by associations. Quashie and Aggey (2013) estimate there are about 300 of such producers who employ about 1,000 people. The last category includes licensed medium to large-scale producers with concession size exceeding 40 acres. There are about 30 of such companies employing 2,000 people (Quashie and Aggey, 2013).

The categorization by GEPC (2009) placed an upper land size limit of 3706 acres to the category. It is understood that at the time of that study, the largest salt concession was 3706 acres and was thus used as the upper limit. Things have, however, changed with new companies owning several thousands of acres more than the largest concession at the time. For example the size of the concession awarded to Kensington Salt Industries is estimated to be 6,000 acres, while Anlo Solar Salt Works Limited's concession covers an area of 11,377.91 acres. This prompts a discussion about the limit on the size of the concession that can be granted to a single entity. The number of people and livelihoods to be affected when such areas are awarded as concessions must be considered. Currently, the Minerals Commission, which advises the Minister responsible for Mines to grant mineral rights, pays little attention to the effects the award of mineral rights has on people and livelihoods. It therefore has no framework for assessing the impact on livelihoods occasioned by granting of mining leases let alone addressing such livelihood impacts. The Commission rather expects the Environmental Protection Agency to use its environmental protection procedures to address such livelihood concerns. However, since granting of mineral rights is not conditioned upon environmental permits, the concerns of people and livelihoods affected by mineral rights are often not sufficiently addressed.

Different ASSM organizations can be observed in salt production regions. These organizations can be grouped into three categories. The first and at the apex, is a relatively weak national association of salt miners[5]. The second category comprises relatively strong zonal salt producers' associations at the key salt-producing zones or districts in the country. These zones (weakly demarcated) include Adina, Afiadenyigba, Ahanta, Apam, Elmina, Nyanyano, Ningo, Keta, Prampram and Sege. These zonal associations federate to form the national association of salt producers. The third category comprises relatively loose organizations that either operate as sub-organizations of zonal associations or as independent organizations in a community within a zonal area. The various associations offer services to their members, particularly marketing services and encourage cooperation (economic and social) among members. The zonal associations are noted for producing branded sacks for packaging salt produced by its members. GEPC (2009) reports that profits made from the sale of branded sacks, by zonal associations, are used to satisfy clan chiefs and national tax agencies.

d) The Role of Women in the Salt Industry

The role of women in the salt industry is much bigger than in the mining industry in general. Hinton et al (2003) suggest that the involvement of women in salt mining in Ghana is as high as 75 per cent. This is significantly greater than the proportions of female licensed buyers (6%), concession holders (10%), work group sponsors or participants (15-20%) and approximately 15 per cent of legal small-scale mining labour force (Hinton et al, 2003). Hilson (2001) also estimated that women constitute up to half of people involved in illegal small-scale activities. The greater

[5] The national association is weak largely because of inadequate commitment shown by zonal associations towards the national association.

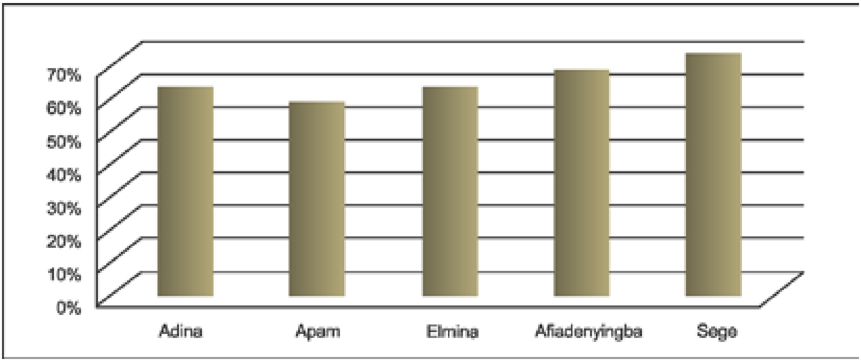
involvement of women in salt mining is believed to be associated with the ease with which salt is produced by the solar evaporation approach. Salt is generally viewed as a "low hanging fruit" traditionally collected by women to be used for cooking in the kitchen and the remainder sold on the market. It is therefore no coincidence that there is greater involvement of women in salt production than men.

Further, artisanal and small-scale salt production activities generate a lot of menial jobs that are easily accessible to people within the communities especially women. These jobs include carting salt from crystallization pans to various store rooms, iodizing the salt, putting them in branded sacks and sewing them. In all these activities, women play a leading role. Figure 5 shows female membership in producer associations while Figure 6 shows that in all salt mining communities, females dominate carting of salt from crystallization pans to storage facilities. They constitute at least 80 per cent at Apam and at up to 90 per cent at Adina and Afiadenyigba.

Another dimension of the greater involvement of women in the salt industry is trade in the commodity locally and internationally. There is a sizeable number of female traders who buy and aggregate salt for sale in the middle and northern parts of Ghana. These traders in return procure other commodities (especially foodstuffs) back to the salt-producing areas. Livelihoods of such women largely depend on the salt industry (and more importantly the availability of small-scale producers from whom they can buy). On the other hand, some of the female traders are major financiers of salt production activities, providing credit facilities in communities where banking services (especially loan facilities), are not just expensive but difficult to obtain given the collateral required by financial institutions.

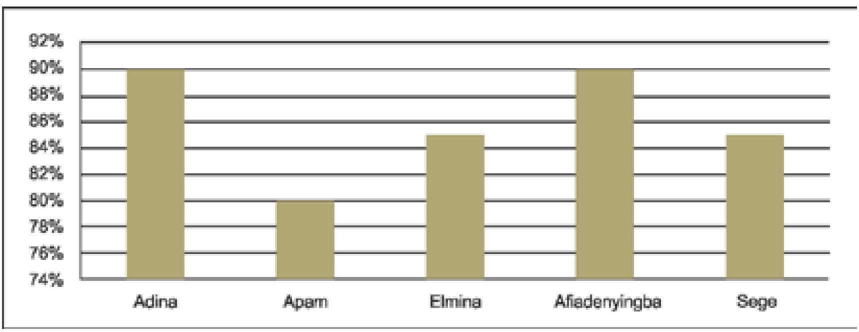
One old woman interviewed as part of the study indicated that the lagoon provides three main benefits: fishing, salt mining and farming. Men dominate in fishing while women take up salt mining and both men and women equally engage in farming. "After men have 'mined' fish from the lagoon during the wet or rainy season, women also go there to mine salt that is produced by the lagoon when it dries up during the dry season", she explained further. The greater involvement of women in salt mining can be further demonstrated by the following graphs. Though a lot of women are involved in salt mining activities, only a few are in leadership positions. At Adina however, the association is chaired by a woman.

Figure 5: Percentage of Female Members of Zonal Association



Source: Field Work (2017)

Figure 6: Percentage of Women who Carry Salt to Storage Facilities



Source: Field Work (2017)

3. Regulatory, Policy and Institutional Frameworks for the Salt Sector in Ghana

The preceding section overviews the salt industry in Ghana as a prelude to this section which reviews its regulatory and policy frameworks. The last two sub-sections present emerging regional and continental policy prescriptions; it shows gaps between national policy positions on the one hand and regional and continental policy prescriptions on the other. This sets the context for a discussion on developments at the Keta Lagoon Basin in the next section.

a) Regulatory Regime for the Salt Sector in Ghana

Salt is classified as a solid mineral and therefore is one of the mineral resources nationalized and vested in the President on behalf of, and in trust[6] for the people of Ghana by the 1992 Constitution of the Republic of Ghana (See Chapter 21, Article 257 (6)). The main law that regulates all mining activities in the country is the Minerals and Mining Law, 2006 (Act 703) and other amendments made to the law. The mining law provides for different mineral rights and the role of key agencies in regulating the sector. The Minerals Commission, established in keeping with the Constitution is the key public agency responsible for the regulation and management of mineral resources. The Commission coordinates and implements related policies. In particular, the Inspectorate Division of Mines is responsible for ensuring that activities of mining companies comply with the law. Applications for mineral rights are to be made to the Minerals Commission, which processes them and advises the Minister responsible for Mines whether to grant the application or otherwise. When granted, it must be ratified by Parliament (in the case of a mining lease). Mining companies are required by law to submit regular returns to the Minerals Commission.

[6] The exercise of the "trusteeship" has been criticized by many non-state organizations and ordinary people.

This enables the Commission to monitor implementation of the terms of the lease.

The mining law empowers the Minister responsible for Mines on behalf of the President and on the recommendation of the Minerals Commission to negotiate, grant, revoke, suspend or renew mineral rights in accordance with the law. It also enables the holder of the mineral right, subject to requisite approvals or licenses under the Water Resources Commission Act (Act 552) to obtain, divert, impound, convey and use water from all manner of sources including underground reservoirs within the concession. Mineral rights holders are mandated by law to obtain necessary approvals and permits from the Forestry Commission and the Environmental Protection Agency to protect natural resources, public health and the environment prior to undertaking any activity or operation under the mineral right. Although the people of Ghana own the mineral resources, records, documents and information related to mining activities are supposed to be treated as confidential according to the law. However, they can be made available for inspection by the public, subject to payment of prescribed fees. The law also provides other benefits such as transferability of capital, which enables mineral right holders to retain a portion of foreign exchange obtained from the sale of output in an offshore account.

Act 703 provides for the owner or lawful occupier of any land subject to a mineral right to claim compensation from the mineral right holder for the "disturbance of the rights of the owner or occupier." The law further provides these principles or basis to guide compensation claims:

a. Deprivation of the use or a particular use of the natural surface of the land or part of the land,
b. Loss of or damage to immovable properties,
c. In the case of land under cultivation, loss of earnings or sustenance suffered by the owner or lawful occupier, having due regard to the nature of their interest in the land, and
d. Loss of expected income, depending on the nature of crops on the land and their life expectancy.

In 2012, Parliament adopted regulations (on compensation and resettlement) as set by the Minister responsible for Mines. Those regulations

(LI 2175) provide further details on the manner in which the principles above must be applied. The regulations establish the conduct of negotiations for determining compensation. Mineral rights holders are now required to ensure that payment of compensation is effected within three months after the amount payable is determined. Otherwise, the holder will be liable to pay an interest rate of ten per cent of the compensation for each month the compensation remains unpaid. On resettlement, the regulations oblige mineral rights holders to engage in prior consultations with District Assemblies, chiefs and inhabitants to address a host of issues identified in the regulations. The mining law also sets the framework for small-scale mining, which is a preserve for citizens of Ghana.

Further, the salt sector is regulated by other legislative instruments passed by Ghana's Parliament as well as by-laws of local governments in whose jurisdiction salt mining activities take place. Among these instruments is the Environmental Assessment Regulations, 1999 (LI 1652) ('Environmental Regulations') which requires that proponents of salt mining activities (especially large-scale operations) obtain an Environmental Permit (EP) prior to commencing mining activities. To obtain the EP the company must demonstrate how possible negative impacts of its mining operations will be mitigated, including ensuring that prompt and adequate compensation is paid to all those negatively affected by the mining activity. Even though the EP must be obtained before starting actual mining activities, it is no longer required for obtaining a mining lease as it used to be. Another important legislative instrument applicable in the salt sector is the Water Resources Commission Act, 1996 (Act 522) which provides the framework for obtaining permits such as Drilling Permits and Water Permits before mining operations depending on the extent of use of water in implicated activities. The last major set of legislative instruments that apply to mining activities are those that border on taxation, since mining is an important economic activity. Annex 1 provides various legislative and other documents that form the basis of the Minerals and Mining Sector legal framework.

b) Policy and Institutional Frameworks for the Salt Sector in Ghana

In 2014, the Government of Ghana finalized a minerals and mining policy document that envisages a mining sector that contributes to sustainable development[7]. In that document, salt mining is described as having a "huge potential" that is yet to be realized. It is therefore the policy objective of the government to "secure the continued development of an efficient and thriving salt industry that will extract all possible by- and co-products from the production process and generate supplies for domestic as well as raw material needs of appropriate local and regional industries" (Government of Ghana, 2014). These positions on salt are further elaborated in the last two medium-term policy frameworks (Ghana Shared Growth and Development Agenda (GSGDA) I and II). GSGDA I identified salt production as a strategic venture for export to other countries in the sub-region and relevant for the creation of raw materials base for developing indigenous petrochemical industry. In the GSGDA II the relevance of salt was broadened beyond export and the petrochemical industry to include production of caustic soda and by extension alumina (for which caustic soda is critical). Other areas where the salt sector is envisaged to provide support include the proposed integrated bauxite-alumina industry, agriculture, food and beverage, as well as water and textiles sub-sector (Government of Ghana, 2014).

In view of the increased focus on salt, the government has granted several concessions for large-scale salt production over the past decade. Further, the Ministry of Lands and Natural Resources (MLNR) in 2012 decided to "develop fiscal incentives to attract investment in the salt industry" (MLNR, 2012). Historically, most investments attracted to the mining sector, with generous fiscal incentives, have been foreign investment. All these developments point to a salt strategy dominated by large-scale operations with attendant challenges and concerns. This is because areas feasible for salt production are already being operated by ASSM.

The minerals and mining policy took cognizance of land-use and environmental challenges in salt-producing areas. It referred to "the development framework" which will include the establishment of appropriate

[7] In 2012, the Minister responsible for Mines indicated that the government was developing a national salt policy as part of diversifying Ghana's mineral resources base (Abbey Emelia, 2012).

sustainable livelihood projects and environmental impact mitigating programmes. These projects and programmes are to be "well suited for the affected communities to ensure that the livelihood of the indigenous people are not jeopardized." However, there is no indication in the policy document regarding the status of "the development framework." Whether or not it has already been designed isn't clear; and if it is being designed, there is no information on when it is expected to be ready. This notwithstanding, the spirit of the policy puts a responsibility on relevant state agencies (especially the Minerals Commission) to ensure that the livelihood of indigenous people affected by the grant of large-scale salt-producing concessions are not jeopardized. This responsibility would require that the Minerals Commission directly engages indigenous people affected by operations of large-scale salt-mining activities to ensure that their livelihood activities are not jeopardized.

Prior to the 2014 Minerals and Mining Policy, there were some relevant policy documents that sought to address issues in the mining sector. The first is the Master Plan for Salt Development in Ghana, put together in 1991 for the government by Cuban consultants. It gives greater recognition to artisanal producers and is quite popular among them (see Box 3). This policy document did not see the light of day. The other, more recent, document is the Land Use Plan for the Songor Area, developed in 2006, with heavy emphasis on a private sector led approach to developing salt fields. The approach gave little recognition to artisanal producers and cooperatives in salt-producing areas. Given the relevance of the Songor Area to salt production in the country and the long-standing "stalemate," the Private Enterprise Foundation (PEF) engaged major stakeholders to resolve related land disputes. This engagement has produced a template that enables traditional authorities to partake in salt production activities.

In terms of an institutional framework for the salt sector, the Minerals Commission and Ministry of Lands and Natural Resources have the mandate to develop the mining sector in general and salt sector in particular. The previous section on the regulatory regime indicated roles performed by the Minerals Commission and the ministry. The Environmental Protection Agency (EPA Act 490) is also responsible for ensuring that all investment and undertakings in the mining sector comply with the highest level of environmental standards. There is also the Water Resources Commission (WRC) and the Forestry Commission (FC) which must issue a

BOX 3: BRIEF OVERVIEW OF THE MASTER PLAN FOR SALT DEVELOPMENT IN GHANA, 1991

The policy blueprint was developed in response to resistance by local producers against large-scale salt operations at the Songor Lagoon that resulted in the death of a pregnant woman and a ban on all large-scale salt operations. The military government at the time, through the Secretary for Lands and Natural Resources, called for a study that led to the development of the Master Plan.

The document opens with a description of salt production conditions at the Ada Songor Lagoon which has a total surface area of 7,920 hectares (19,440.4 acres) and how the lagoon surface area is distributed among three concession holders (Vacuum Salt Production Ltd, Star Chemicals Industries Ltd and Ada Traditional Council). It also profiles all the co-operative societies (7 in all) that operate at Ada Songor Lagoon with the size of their memberships, totalling 6238.

Based on meteorological indications and an assumption of 85 per cent efficiency, it estimates potential yield per crystalizing area during the entire salt season to be 180.2kg/m2 and the practical yield can be designed to be 149.0kg/m2 of crystallizing area. Consequently, the Master Plan estimates the global potential that can be achieved in Ada Songor Lagoon for salt production at about 1.3 million tonnes annually.

The Master Plan then argues for a phased development of salt infrastructure at the Songor Lagoon at a total investment cost of US$60 million.

The beauty of the Master Plan and its popularity among local producers is the recognition, and therefore the legitimacy it gives to the local producers in the scheme of works proposed. The Lagoon resources were basically shared between the large-scale miners and small-scale producers. Most of the small-scale producers (if not all) were guaranteed continued and more productive production.

Sadly, the Master Plan continues to remain on the shelves gathering dust. Had it been implemented, the total investment cost would have long been recouped on the bases of estimated production cost and expected output and revenue, turning the facility (largely a white elephant at the moment) into a cash cow by now.

Source: Master Plan for Salt Production in Ghana, 1991

permit if water or forest resources will be affected by the proposed mining activity. As most mining activities require water, the WRC has been a very important regulatory agency in the mining sector. In the regulatory regime discussed above, compensation and resettlement constitute a major part of mineral exploitation in Ghana. The Lands Valuation Board (an agency of the Lands Commission) and the Town and Country Planning (an agency of the District and Municipal Assemblies) are therefore important regulatory agencies that ensure that compensation (negotiations and payment) and resettlement are undertaken in compliance with established principles and standards. Finally, traditional authorities, community-based organizations and trade associations are also important non-governmental institutions that contribute to the governance of the sector.

The Ministry of Trade and Industry (MoTI) and the Ghana Exports Promotion Authority (GEPA) have also been engaged in the salt sector. MoTI and GEPA provide support to key stakeholders, especially salt producers. The Ministry of Trade and Industry's engagement has focused on providing support to the salt industry in general (especially ASSM) and the iodization of salt in collaboration with other state and non-state agencies. In relation to this, the ministry piloted "salt iodization centre" and "salt bank" initiatives at Nyanyano in the Central Region a couple of years ago. In the ministry's 2012-2014 programme-based budget, it indicated providing support for the rehabilitation of existing salt works (mainly salt pans) for the benefit of salt miners and acquired 50 acres of land for salt production (MoTI, 2012). These initiatives did not yield the expected benefits and were therefore discontinued. One of the four Presidential Special Initiatives (PSI) implemented more than a decade ago focused on salt. The ministry got nowhere near its target of raising salt production from 200,000 metric tonnes in 2004 to 2,500,000 metric tonnes in five years with the PSI on salt. Efforts to obtain information on specific activities carried out under the PSI and resources expended have been futile.

c) Emerging Regional and Continental Policy Positions

In February 2009, the Heads of State and Governments of the African Union adopted a continental mining vision. This vision envisages "a mining sector that optimises and husbands Africa's finite mineral resource endowments. This vision is diversified, incorporating both high value metals and lower value industrial minerals at both commercial[8] and small-scale levels." Further, the Africa Mining Vision (AMV) envisions "a mining sector

[8] The use of the word commercial separately from small-scale operations unfortunately appears to support the view that small-scale activities are not commercial.

that harnesses the potential of artisanal and small-scale mining to stimulate local/national entrepreneurship, improve livelihoods, and advance integrated rural social and economic development." The AMV references the Yaoundé Vision on Artisanal and Small-scale Mining and presents the case of artisanal and small-scale mining – potentials, impacts and challenges under section four which focuses on "critical constraints and success factors in realizing the vision." In short, the AMV is recognizant of the importance of ASM.

The ECOWAS Minerals Development Policy (EMDP) follows a similar trajectory as the AMV and emphasizes the relevance of stakeholder involvement and consultation. At a point, the EMDP calls on member states to ensure the implementation of Free, Prior and Informed Consent (FPIC) in the mining sector. Both the AMV and EMDP have developed action plans that assign member states, donor agencies and non-state actors responsibilities for undertaking relevant activities towards realizing the objectives of the policy frameworks. Ghana contributed significantly to the design of these policy frameworks and has indicated its commitment towards its implementation. Ghana is designing the Country Mining Vision (CMV), the national equivalent of the AMV.

Both the AMV and EMDP have emerged, following weaknesses in the mineral regimes operating on the continent that fail to ensure extraction of mineral resources inure to the benefit of host countries. Ordinary citizens and CSOs played key roles in the adoption of these policy frameworks through loud expressions of discontent about the outcomes of mining activities on the continent. In particular, the worsening plights of people living near mining activities contrast the reports of high profitability in the mining industry. In addition, the relatively low returns to the state has forced a rethink by African countries with ordinary citizens highly expectant of positive change in the way mineral resources are exploited. The AMV's promise of "transparent, equitable and optimal exploitation of (Africa's) mineral resources to underpin broad-based sustainable growth and socio-economic development" strikes a chord among the masses on the continent. Ordinary citizens, therefore, look forward to full implementation of the AMV and EMDP (excerpts in Boxes 4 and 5 below).

BOX 4: EXCERPTS FROM THE ECOWAS MINERALS DEVELOPMENT POLICY (EMDP)

Article 2.8 of EMDP (Development of Artisanal and Small-scale Mining) call on Member States to undertake to:

a. Improve Artisanal and Small-scale Mining activities through specific institutional and legislative frameworks.
b. Encourage the formation of cooperatives in the ASM sub-sector.
c. Encourage technical and financial assistance programs for the benefit of Artisanal and Small-scale Mining activities
d. Strengthen professional organizations for information sharing and technical capacity enhancements for the ASM sub-sector.
e. Develop training curricula and good practices relevant to the social context and supported by technology transfers.
f. Promote the harmonious co-existence between Large-scale Mineral Operators and ASM operators.
g. Encourage the establishment of a coordinated system of licensed Mineral Buying Centers/Agencies in the Community.

Objective 8 of the Implementation Matrix of the EMDP is to "Promote the Development of Artisanal and Small-scale Mining (ASM) and oblige Member States to implement the following activities:

a. Formulate specific institutional and legislative frameworks for Artisanal and Small-scale Mining;
b. Promote the setting up of technical and financial assistance programs for Artisanal and Small-scale Mining;
c. Encourage the formation of cooperatives in the ASM sector;
d. Strengthen trade/vocational organizations for information sharing and technical capacity enhancements for the ASM Sector; and
e. Promote the development of training curricula and good practices for the ASM Sector.

BOX 5: EXCERPTS FROM THE ACTION PLAN FOR THE IMPLEMENTATION OF THE AFRICA MINING VISION (AMV)

Program Cluster 4 of the Action Plan for implementing the AMV is on ASM and aims at developing "a mining sector that harnesses the potential of artisanal and small-scale mining to advance integrated and sustainable rural socio-economic development. The program cluster calls on Member States to implement the following activities:

a. Regularize and mainstream ASM into broad stream socioeconomic activities;
b. Develop policies, laws, regulations, standards and codes to promote a viable and sustainable ASM sector;
c. Develop programs to upgrade knowledge, skills and technologies in the ASM sector; including:
    i. Promoting local service providers in the sub-sector;
    ii. Models for partnership with government and large-scale mines to facilitate access to technology, skills, knowledge and markets;
    iii. Financing and marketing programs appropriate to the ASM sector
    iv. Improved health, safety, environment and gender in ASM
d. Determine and designate geologically suitable areas for ASM;
e. Promote youth employment and engagement in the ASM sector;
f. Develop methodologies or templates for distinguishing potentially viable ASM operations for targeted support;
g. Develop and strengthen ASM associations;
h. Implement international and Regional instruments relevant to the ASM sector;
i. Develop programs for promoting value-addition in ASM; and
j. Develop institutional linkages from national through to local levels for effective management of ASM.

Program Cluster 4 further calls on Regional Economic Communities to implement the following:

a. Harmonize ASM policies, laws, regulations, standards and codes;
b. Coordinate and facilitate technology development and transfer at sub-regional level
c. Develop and promote implementation of a regional tool kit for engagement between LSM and ASM including requiring LSM to develop the capacity of ASM
d. Lead initiatives to formalize and upgrade skills, knowledge and practices in the artisanal and small-scale mining sector;
e. Promote and coordinate standard measures for training examination and certification for the ASM sector
f. Develop continental policies, laws, regulations, standards and codes to promote sustainable ASM led by AUC/NCPA; and
g. Adopt and strengthen measures to address illicit trade in minerals.

Source: Action Plan for the Implementation of the Africa Mining Vision

d) Gaps between National Policy and Regulatory Regime and Emerging Regional and Continental Framework

Comprehensive assessment of the national policy and regulatory regime within the context of an emerging regional and continental framework is required to identify all major gaps. The design of the CMV requires such a comprehensive assessment. Within the context of this study, however, gaps have been identified between the national approach to ASM as compared to prescriptions in the emerging regional and continental framework. While the regional and continental framework calls for increased focus and support to ASM operators, there is no well thought out support framework for ASM operators in the national policy framework. Instead, the national mining regime prioritizes foreign-dominated large-scale operations (See for example the shareholding structure of large-scale mines for traditional minerals in Appendix 2). Another area where gaps exist between the national mining framework on one hand and the regional and continental mining framework on the other is stakeholder involvement and consultation with the sector.

The level of involvement and consultation that characterizes activities in the mining sector in the country is low as compared to prescriptions of AMV and EMDP. A case in point is the role played by local governments and the extent to which they are involved in granting mining leases. The practice is for the Minerals Commission to request a “no objection” to a proposed project following its publication at the Assembly. But, it takes years after the mining lease is granted before the Assembly is notified or gets a copy of the lease. Both the Minerals Commission, which recommends granting of a mineral right and the Ministry responsible for Mines do not directly engage communities that would be affected by the lease. Though such engagements are not required by law, they have the potential of improving governance of the sector. It is for this reason that the AMV and the EMDP make impacts and benefits agreements with communities in mining areas a very critical component of the preparatory processes for mining. The AMV specifically calls on governments to develop and implement guidelines for impacts and benefits agreements with communities in mining areas, as well as build capacities of communities and CSOs to negotiate impacts and benefits agreements.

4. The Keta Lagoon Basin

a) The Keta Lagoon Basin

The Keta Lagoon[9] (see Figure 7) is located on the eastern coast of Ghana and is the largest of over 90 such lagoons in the country. The lagoon has

Figure 7: Keta Lagoon and its location on the Map of Ghana

Source: Sanusi and Sarfo (2016)

[9] Different maps of the Keta Lagoon were found with different boundaries. This is understandable given that as a water body the volume of water in it which determines its boundaries is not constant. It is obvious that the boundaries of the lagoon during the wet or rainy season when the volume of water in the lagoon is very high would be completely different from the boundaries of the lagoon during dry season when the volume of water in it is very low. The choice of this version of maps available (stretching well into Ketu South Municipal Assembly) was influenced by the goal and objectives of the study.

a length of 126.13km (Wikipedia) and is the most extensive brackish water-body of Ghana designated as a wetland of international importance or a Ramsar site (Addo et al., 2014). The Keta Lagoon falls in four local government jurisdictions: Keta Municipal Assembly, Ketu South Municipal Assembly, Ketu North and South Tongu Districts.

b) Livelihood Activities Supported by the Lagoon

The lagoon supports different forms of life and therefore constitutes an important source of livelihood for the people who live in its catchment areas and beyond the region. The main economic activities supported by the lagoon are farming, fishing and salt mining. In a study by Addo et al. (2014), a total of 22 finfish species were encountered in two sites (Anloga and Woe) between August 2010 and March 2011. Fishing in the lagoon as well as the Atlantic Ocean, which is separated from the lagoon by a narrow strip of sandbar has, historically, been the mainstay of the economies of the communities that surround the lagoon. Fishing aside, there is an appreciable number of people who engage in farming, especially the cultivation of vegetables (and improving food security in catchment settlements). Vegetables require a lot of water and the lagoon has been very useful in that venture, supplying fresh water to vegetable farms for irrigation. According to one resident interviewed, tilapia, gbovilolo and eflo are the three main types of fish that are regularly harvested in the lagoon. In terms of agriculture, crops such as okro, pepper, tomatoes and cotton are usually cultivated on the banks of the lagoon to take advantage of the water resource. In Ketu South, about 18 per cent of the workforce is engaged in the agricultural, forestry and fishing industries, while in neighbouring Keta Municipality 36 per cent of the population is engaged in the industry (GSS, 2010). The industry is dominated by agricultural and fishing activities in these coastal settlements, with the forestry sub-sector hardly existing there.

Besides fishing and farming, the lagoon supports salt mining and winning activities, particularly during the dry season when the volume of water in the lagoon reduces or dries up. In and around the Keta Lagoon, thousands of people engage in artisanal salt winning during the dry season. For these people, they move to parts of the lagoon where salt is naturally produced through evaporation and collect it for domestic use and the rest is sold. Like in fishing, where residents of catchment settlements have to pick up their net and other equipment, artisanal salt winning also requires shovels and other basic implements. Just as the lagoon is not demarcated for those who engage in fishing, the natural salt-producing parts of the dry lagoon is generally not demarcated for artisanal salt winning. Apart from artisanal salt producers whose livelihoods are supported by the lagoon, there are also small-, medium- and large-scale salt producers in the region.

Table 1 below shows companies located in and around the Keta Lagoon Basin, which were granted salt mining leases for medium-scale mining operations as of 26th January 2017. Even though the full list from which this table was extracted describes all companies captured in there as medium-scale operators, the list contained companies that can be described as large- scale operators. These companies include Panbros Salt Industries Limited and U2.

Table 1: List of Companies Granted Salt Mining Leases for Medium-Scale Mining Operations as at 26th January, 2017 in and around the Keta Lagoon Basin in Volta Region

Name of Company	Location	District	Region
Kings Choice Salt Industry Limited	Fiahor	Keta	Volta
Med – X Ghana Limited	Adina	Ketu South	Volta
Regis Investments Limited	Afife	Ketu	Volta
West African Goldfields Limited	Blekusu	Ketu South	Volta
West African Goldfields Limited (formerly SVSIL)	Adina	Ketu South	Volta
White D'or Minerals Limited	Adafienu	Ketu	Volta

Source: Minerals Commission (2017)

c) Concessions Recently Granted to Large-Scale Salt Miners (in and around the Lagoon)

Since 2011, the Ministry of Lands and Natural Resources (acting on the advice of the Minerals Commission) has granted salt mining leases to three large-scale companies in and around the Keta Lagoon. The total number of acres involved in the concessions to these three large-scale companies (all heavily dominated by foreign capital) is nearing 20,000. Details of these concessions are provided in Table 2 and Figure 8. It is instructive to note that the companies in the table below do not appear on the list of salt-mining companies provided by the Minerals Commission, even though copies of mining leases granted these companies were shared by the Commission. This has implications for the actual number of mining leases granted for the production of salt in and around the Keta Lagoon recently. It is strange that the Commission's database for mining leases granted for salt production does not include these companies.

Table 2: Concessions Recently Granted for Large-Scale Salt Production

Name of Company	Size in Acres	Year Granted	Location	District	Region
Kensington Ind. Ltd.	6,004.48[10]	Dec' 2011	Adina	Ketu South	Volta
Sterling Industries Ltd.	790	Jan' 2011	(?)	Ketu North	Volta
Anlo Solar Salt Wks. Ltd.	11,377.91	?	Dzita	Keta	Volta

Minerals Commission (2016)

d) Near Collapse of Indigenous Small and Medium-Scale Salt Operations

The decision by the Ministry of Lands and Natural Resources (and therefore the Minerals Commission, which makes such recommendations) to grant concessions (salt mining leases) to large-scale mining operators covering a total area of nearly 20,000 acres around the Keta Lagoon marked the beginning of the seeming collapse of emerging indigenous small and medium scale salt companies. This decision rendered salt winning activities as well as small and medium scale salt producing entities, operating

[10] Kensington indicated in a presentation at a stakeholders' meeting at Alisa Hotel on 18th June, 2014 that it had applied for an additional 1,294.93 acres of land at Adina for salt field expansion. This brings the total land possessed by the company to 7299.41 acres. The company also indicated that it has agreed to cede a total of 1752.31 acres of its concession to neighboring communities to undertake their fishing and salt winning activities. It is unclear if this arrangement has been sanctioned by the Minerals Commission.

Figure 8: Map showing Various Mineral Rights (Salt) Granted in and around the Keta Lagoon

Source: Minerals Commission (2016)

in and around the Keta lagoon prior to the granting of recent concessions, illegal. It is clear and obvious that the interests of these small and medium scale operators (and thousands of salt winners affected) were not considered as most of them were not engaged in the processes that led to the award of concessions on areas where they operate. The posturing the ministry and the Minerals Commission as well as the manner in which large swathes of land were given to large-scale salt-producing companies (all of them heavily dominated by foreigners) to the detriment of indigenous small and medium scale operators has not only been worrying, but questions the State's seriousness about its own commitment to the maiden mineral and mining policy, "to ensure that livelihood of the indigenous people are not jeopardized," as nothing has so far been done to sustain the livelihoods of the thousands of people affected.

The case of one Joshua Kpakpa (a medium-scale salt producer at Adina where Kensington also operates), reveals the difficulties local producers go through and the lack of sustainable support for them in the face of stiff competition with foreign-dominated large-scale operators. With interest and capital to invest in the salt sector, by establishing a medium-scale salt works, Mr. Kpakpa began his search in 2004/5 for viable land from Kpone (with very receptive local government officials) and then moved to Pampram all without success. He was then directed to Adina in 2006 where he joined the local association of salt producers and met some chiefs in search for suitable land to start his salt project. He found a place, but keen on ensuring that he operates within the law, he went to the Minerals Commission to undertake a search; one of the requirements for applying for a lease. He then realized that the entire place had been leased to West African Goldfields Limited (WAGL). This meant that he could not obtain a mining lease to enable him to operate within the bounds of the law. Meanwhile, WAGL had not started operations and showed no readiness to start operations. Mr. Kpakpa therefore convinced the local producers association to obtain consent from WAGL ceding part of its concession to the association.

Despite initial foot dragging, the association obtained an agreement from WAGL ceding 960 acres of its concession for the small and medium scale operators to undertake their salt works. This was witnessed by the Minerals Commission, which okayed the activities of the small and medium scale operators, but stopped short of issuing mining leases for them largely because WAGL had not applied for or obtained a certificate of surrender as required by law in such circumstances. Nonetheless, the Minerals Commission, prior to that and thereafter, had regular correspondence (including visits) with the small and medium scale producers at Adina and adjoining communities. The ceded land was then shared among a group of small and medium scale operators, each obtaining roughly 50 acres of land. Over time, some producers had difficulty in sustaining their production activities as they could not produce sufficient amounts of salt to cover production costs and stay in business. Some of the producers were not breaking even, let alone making a profit. It often takes time to make profits in projects of this nature. Mr. Kpakpa's operations (which continue till today) did not face many challenges as he employed different production techniques, involving the use of back waters and rubber sheets. He also used underground brine which was more concentrated than sea brine.

Mr. Kpakpa therefore introduced other producers to more viable methods of production until Kensington Salt Industries Limited entered the picture. Kensington acquired the entire concession granted to WAGL (including the 960 acres ceded to small and medium-scale operators). After the acquisition, the company dishonored the agreement covering the

960 acres ceded by WAGL to the local salt producers. They evicted most of them, but a few (including Mr. Kpakpa) continue to operate, but on a smaller scale than before as Kensington took over much of the land. No compensation since has been paid to the local producers. The few local producers who continue to produce salt there do so with mixed feelings (in fear and anger), as there is no certain tenure security on the land on which they operate. If some of the land does not return to local producers, one of two things will happen. Either the small and medium scale sector will collapse entirely with operators moving into other sectors of the economy (which is an unlikely option as fewer prospects exist in other sectors of the economy), or the local producers will stage a fight back for their land, destabilizing the operations of Kensington. The latter seems to be happening.

e) Boundary-Related Disputes and Conflicts

Disputes and conflicts related to boundaries of lands in the mining sector are quite common, especially in the gold sector which dominates the mining industry. Related to this problem is the issue of encroachment which is not limited to the mining sector but also other sectors of the economy. In the mining sector, common challenges with boundaries have been illegal access to and mining in parts of concessions belonging to other operators. There have also been instances where some concession holders go beyond the boundaries of their concessions. During an interview with some local producers in salt-producing areas (such as Adina and Nyanyano) it was observed that the salt sector also has its share of conflicts related to boundaries, especially given that there are no clearly defined boundaries in the artisanal and small-scale sector.

Some of the mining leases granted by the state to large-scale salt-producing companies have been characterized by boundary disputes and conflicts, particularly because of how the leases are granted (with little or no consultation with local producers and affected communities). The case of Kensington is quite an instructive example given the level of resistance to its operations. When the company obtained its mining lease, principal officials of the company met some key stakeholders (including chiefs and opinion leaders) of communities within its immediate catchment area, at Alisa Hotel in Accra. The meeting was also attended by officials of some state agencies such as the Minerals Commission and the Environmental Protection Agency. There were also regional and municipal Security Council meetings attended by some chiefs in connection with the project. An agreement was reached at these meetings that paved way for initial construction works to begin. As the company moved from construction to production, it needed to access other areas of its concession farther away from Adina. The footprints of the company increased, with more communities that were not part of initial agreement feeling the brunt of the company's operations. Agitations and demonstrations were initiated, peaking in December 2015 when some demonstrators were shot by policemen providing security services to the company. Some policemen sustained various injuries as one demonstrator whisked the pistol belonging to the Keta Divisional Commander of Police and pulled the trigger in his direction. The Commander's life was saved by the pistol being either locked or having no bullets. The company's excavator and tipper truck were burnt by the demonstrators.

Following the demonstrations, the initial agreement reached with some stakeholders was annulled and the committee that mediated between the company and affected communities dissolved. A new committee, much broader and with representation from virtually all communities affected by the operations of the company, has been established to address concerns and challenges facing communities affected by Kensington's operations. The company describes this new committee as a Sensitization Committee charged with educating the communities about laws governing such projects. Nonetheless, some of the local people interviewed indicated that the new committee is far from a sensitization committee. The interviewees believe the committee is tasked with identifying all concerns and challenges facing communities affected by Kensington's operations; as well as negotiating with the company on how to address them[11]. Key among the demands of the communities is the return of a portion of the lagoon legally leased to the company. While the company has agreed to return 30 per cent of its concession fully developed into relevant concentration ponds and salt pans, the communities are demanding a much bigger portion of up

[11] This development clearly demonstrates the Environmental Impact Assessment Procedures that were undertaken were not done well. The main task of the new committee should have been undertaken as part of EIA procedures.

to 60 per cent. Anything short of the demands of the affected communities could be a source of future conflicts.

Poor collaboration and consultation among relevant state agencies and with communities affected by the operations of the company is a major reason the company has gone through these challenges. For example, an interview with the principal officials at the Ketu South Municipal Assembly revealed that they were yet to receive a copy of the mining lease granted the company, several years ago. Therefore, the Ketu South Municipal Assembly does not know the exact boundaries of the concession or all the communities to be affected by the concession.

Further, the company's position that it owes no compensation to the communities because no meaningful economic activities were going on when it received the lease is problematic and must be reviewed. The laws of Ghana on mining-induced displacements are clear. Both the Constitution and the Minerals and Mining Law require prompt and adequate payment of compensation to all those who stand to be affected by mining activities. Given previous engagement between the Municipal Assembly (its Environmental Health Directorate) and local salt producers, the fact that some people have been affected by the operations of Kensington cannot be denied. It can be reasoned that if adequate measures are not put in place to address fundamental concerns facing the communities, the problems would recur.

The company's position that no meaningful economic activities (especially fishing and salt mining) were being undertaken by locals at the site prior to their operations was explained by a road construction in the late 1990s that apparently split the Keta Lagoon into two: one to the left of the road and the other to the right of the road. According to the company, the 12.5km Weta-Kedzi highway has no culverts along the way effectively stopping the free flow of water from the larger Keta Lagoon to the left of the road into the smaller Keta Lagoon to the right of the road. The company holds that the road construction resulted in the drying up of the part of the lagoon to the right of the road. Consequently, the place has been less supporting of fishing and salt mining activities. The only minor activities that continued to take place relied mainly on rain water rather than fresh water from the larger Keta Lagoon now to the left of the Weta-Kedzi highway.

5. Concerns and Challenges with Current Government Approach

a) Introduction

The preceding section examines government's policy approach in the salt industry, compared with emerging regional and continental frameworks and established a heavy focus of the government on large-scale operations. This section identifies and discusses key concerns and challenges associated with such an approach.

b) Greater Emphasis on Large-Scale Salt Mining

Growing emphasis on large-scale mining companies in the salt sector is a major concern, especially among indigenous and local SMEs who look forward to state support to grow and sustain their business operations. These SMEs are concerned that their livelihoods will be destroyed to pave way for large-scale salt mining companies to establish their operations. Usually artisanal and small-scale operators have no recognition and legitimacy as most operate without requisite permits. Even though large-scale salt mining firms have a role to play, it is important (especially for equity, inclusivity and sustainability) that a fair balance is struck between artisanal and small-scale operators and large-scale operators. Such a balance must be anchored in a well-thought out framework to ensure that large-scale operations inure to the benefit of local economic actors and produce optimal benefits to the economy. In the salt sector the stakes are even higher given land-use regime in salt producing areas. The level of displacement necessary for large-scale operations make emphasis on large-scale operations more risky.

Another concern with overwhelming emphasis on large-scale operations regards misalignment between national objectives being pursued by the state (such as job creation and inclusive local economic development) and corporate objectives (mainly profit maximization). The state has had cause recently to express concerns about the conduct of large-scale operators in the mining sector in relation to expected benefits from the sector often not realized as mining giants focus mainly on profit maximization. Against this background, emerging regional and continental mining frameworks emphasize an ASM-led approach and have space for large-scale operators. Most representatives of ASSM (78 %) associations interviewed complained about the policy position of government which favours large-scale operators. They indicated readiness to oppose such an approach.

c) Rising Conflicts around Concessions

The approach of the government in the salt sector, as exemplified by how it granted a salt mining lease to a single company, Kensington, covering more than 6,000 acres without proper consultation with affected communities, is worth blaming for the growing conflicts around large-scale concessions. The conflict surrounding Kensington's concession demonstrates a major concern with the current government approach in the salt-mining sector and calls for a rethink. While there have been relative successes in the establishment of some large-scale salt mines (for example Panbros and U2), authorizing more large-scale operations without proper consultation with local producers to ensure sustenance of their livelihood risks generating conflicts.

Indigenous producers at Keta, interviewed expressed fear of repeating the history of Ada where a series of demonstrations and resistance activities peaked in 1985 with a standoff between the people of Ada and security forces acting on behalf of a large-scale company given a concession to mine salt within the catchment areas of the Songor Lagoon. This resulted in the tragic death of a young pregnant woman and prompted a quick response from the government in solidarity with the people, which involved confiscation of the company's assets and nationalization of the Ada Songor Lagoon. It is expected that the history of Ada will guide key stakeholders, especially state agencies, to avoid an unnecessary repetition. Despite being the most productive salt-producing area in the country, Keta has been denied the opportunity to produce the optimal quantity of salt. This can be attributed to the manner in which government leased almost the entire area to large-scale operators resulting in many conflicts. Developments in and around the Keta Lagoon (see Box 6) on key events, demonstrations and agitations against Kensington's operations) suggest that what happened at Ada could be repeated at Keta.

BOX 6: CHRONOLOGY OF KEY AGITATIONS AND DEMONSTRATIONS AGAINST SEVEN SEAS SALT LIMITED'S OPERATIONS

29th March, 2017
Hundreds of residents of Agbozume and Klikor in the Ketu South Municipality went on a demonstration on Wednesday 29th March, 2017 to protest what they describe as adverse effects of Kensington Industries Limited operations on their livelihoods. Clad in red attire, the aggrieved residents marched several kilometers from Agbozume to Denu-Tokor where the Municipal Assembly is located. They presented their petition through the Municipal Assembly to the Government of Ghana. They complained that the company has failed to comply with the agreed terms of engagement and has rather brought hardship to the people affected by their operations. They also accused the company of not using sea brine for their operations as agreed. They had resorted to underground water and caused the drying up of the Lagoon which communities such as Agbozume, Klikor and Adina rely on for fishing.

17th March, 2017
The youth of Adina went on a demonstration at Kensington's premises to protest police arrest of four women accused of collecting salt from the Kensington concession. The demonstration turned violent when the youth clashed with workers of Kensington. The youth were reported to have assaulted the workers on site, vandalized the company's properties and pilfered valuables, including computers and motorbikes. The police intervened in the situation to calm nerves but unfortunately the situation rather escalated as one of the youth – Atsu Nkegbe – died from gunshots ("stray bullets"). Two other people who were hit by the "stray bullets" were severely injured and had to be sent to Korle Bu Teaching Hospital in Accra.

2nd December, 2015
A group of local salt miners from Adina and other neighboring communities protested against the operations of Kensington Industries Limited, accusing the company of taking their livelihood from them. The local salt producers complained that a road being constructed by the company passes through their salt ponds, destroying them and all efforts put in it. In the demonstration, they were reported to have attacked some workers, burnt a tipper truck and excavator of the company. In the process, the Keta Police Commander was hit on the head with an object by one of the demonstrators while another took the Commander's duty pistol and tried to shoot him at close range but failed as the gun had not been cocked. Five local salt miners and three policemen sustained various degrees of injuries as the demonstrations turned violent. The police confirmed arrest of 16 people in connection with the demonstration.

d) Flawed EIA Processes

In December 2015, the Municipal Chief Executive (MCE) of Ketu South Municipal Assembly (where Kensington's salt mining project is located) was reported to have admitted that "the Environmental Protection Agency failed to undertake proper environmental impact assessment before the license was granted to the company" (Tagoe, 2015). This sentiment was confirmed by officials of the Ketu South Municipal Assembly interviewed as well as representatives of communities affected by Kensington's operations. Whereas the EPA doesn't "undertake environmental impact assessment", it facilitates a range of activities that lead to the award of an environmental permit. The remarks of the MCE, therefore, can be viewed as indicting the credibility of the environmental impact assessment procedures. Further, the demonstrations that have characterized Kensington's operations and concessions (including developing and ceding 30 per cent of its concession to the affected communities) clearly show there is something wrong with how these procedures are undertaken.

All efforts by the author to access a copy of the environmental impact statement which provides information on EIA procedures undertaken by the company failed. These efforts include a search at the EPA library in Accra by the librarian, a request to the Ketu South Municipal Assembly and Kensington Salt Industry Limited itself. The company insisted that the document is a "work in progress" so copies cannot be shared with the author or any member of affected communities who puts in a similar request. At the Assembly, all the principal officers interviewed indicated that they themselves have not seen a copy of Kensington's environmental impact statement and wondered if the Assembly had a copy of the statement, even though they admitted that the Assembly ought to have a copy of the document. Fierce resistance displayed against Kensington's operations and offers by the company to cede part of its concession to the communities supports the MCE's admission that the company did not merit the EP obtained from the EPA for its operations. This is because consultations with affected communities (if done) were insufficient and could not identify all possible impacts that would arise out of Kensington's operations. Consequently, the procedures overlooked major impacts that ought to have been identified and their corresponding remedial actions taken.

e) Consequences for Jobs and Livelihoods

One of the main arguments in support of large-scale operations in the mining sector has been their ability to create "decent jobs" in "large quantities," especially for people in their catchment communities. Yet evidence on the ground shows that while they can create some decent jobs, the numbers are unimpressive. This is particularly so when "decent jobs" created by large-scale operations are compared with jobs that must be destroyed to pave way for their operations. The posturing of the state and its determination to "woo" investors into the sector with various incentives (especially fiscal) rather than supporting local artisanal and small-scale producers is therefore risky. Actual figures of jobs destroyed in connection with Kensington's operations are difficult to ascertain. Nonetheless, the African Challenge (a non-governmental organization in the salt sector) estimates that more than 5,000 jobs have been affected or destroyed by Kensington's operations. This figure easily dwarfs the number of jobs created by the company. In an interview, the General Manager of the company indicated that they have created direct jobs of about 600 and are still hiring.

Some workers interviewed on the "decency" of their employment expressed concerns that do not support the view that jobs created by the company are decent. While head porters earn GHC10 a day, other workers (such as those who operate equipment) earn GHC15 a day, according to some workers of the company interviewed. Though not enthused about the work they do and the remuneration, they felt compelled to pick up those jobs given the circumstances they found themselves in (mainly lack of jobs in the communities). They also expressed concern about the health and safety conditions characterizing their work. According to some workers interviewed, many workers do not have safety kits such as gloves and boots. They admitted that many workers who didn't have safety kits refused (as once suggested by officials of the company) to stay home for a while until the company acquired additional safety kits. This is largely because of the harsh conditions of joblessness.

f) Impact on Women and Children

The significant role played by women in salt mining in Ghana means that the resettlements that follow a takeover of mining areas by large-scale operators negatively affect women (and therefore children) more than other economic agents. With approximately two-thirds of salt producers and more than three-quarters of the labour force in the salt sector being women as shown in Figures 5 and 6 above, it is obvious that women bear the greater burden of the fallout of job losses and livelihoods destroyed in the wake of large-scale operations in the salt sector. Further, unemployment, in general, affects women and children more as they dominate the segment of the population that is dependent. In an interview, a female representative of the artisanal salt miners association at Adina, who has four children, lamented the difficulties she has endured following Kensington's takeover of the salt-producing area. No one from her household has been fortunate to get a job from the company. Meanwhile, in the past, they could win salt and sell it to support their household expenditures.

Plate 1: A Cross-Section of Salt Miners Affected by Operations of Kensington Salt Industries

Source: Tagoe (2015)

g) Increased Salinity and Drying up of Hand-Dug Wells

The manner in which Kensington Industries operates its salt mine is cited as responsible for some environmental threats in affected communities. Some of these threats relate to water shortages as hand-dug wells have dried up. This development is believed to have been caused by the decision of Kensington to draw underground water for its production of salt rather than use sea brine water. In other communities, there were reports that the taste of coconut in the areas have changed and become more salty. Again, this was attributed to the use of underground water by the company for its production. Tagoe (2015) reports that one of the salt miners expressed the worry that “the fresh water, that used to flow from Togo into the lagoon, bringing in fish in the rainy season has been blocked by roads and dams constructed by the company. As a result the annual fishing and salt winning seasons that used to bring relief to the people have become a thing of the past since the lagoon dries up prematurely.” The Environmental Protection Agency must investigate these concerns. Also, the investigation must involve the Water Resources Commission, which provided the company with a Water Right Permit to abstract ground water for its mining activities.

6. ASM-Dominant Approach in the Salt Industry

a) Introduction

The previous sections have provided a background of the salt sector in Ghana, with particular reference to recent developments in the Keta Lagoon. They highlight the Government of Ghana's approach to developing the salt industry (heavily focused on large-scale operations), the emerging regional/continental policy framework and concerns about the government's approach. In this penultimate section, the report advances an argument in support of an ASM-dominant approach in developing the salt sector. Though the government recognizes the role of ASM in the mining sector, it still has no clear cut strategy for ASM (particularly in the salt sector). In November 2015, the Minerals Commission published a document titled Artisanal and Small-scale Mining (ASM) Framework. That framework is meant largely for the gold sector, which operates very differently from the salt sector. The government has indicated that it is developing a salt strategy, but there is no information on when the strategy will be ready. Requests to the Minerals Commission seeking information about the status of the salt strategy were not granted.

b) Avoiding Abrupt and Needless Disruption of Deep Seated Historical Relations and Balance

It is widely recognized that salt mining in Ghana is predominantly an ASM-driven activity, and till today, ASSM contributes the lion's share of production (which hovers around 250,000 tonnes per annum)[12]. The dominance of ASM in the salt industry has some historical relevance that supports an ASM-dominant approach in the salt sector. For the past several centuries that Ghana has been producing salt, ASM has been at the

[12] Requests to the Minerals Commission for data on production levels of large-scale operators who submit regular returns to the Commission were not granted. It is therefore difficult to indicate what proportion of the annual production is contributed by ASSM, beyond anecdotal evidence that ASSM contribute a greater proportion of national output.

forefront; making ASM activities an integral part of the economic and social fabric of salt-producing communities. The current posturing of the government to develop the salt sector on the back of LSM (following the creation of the foreign-dominated gold mining sector in the late 1980s) will significantly disrupt the organization of societies and economies in salt- producing communities. The contextual and historical situation in the gold sector differs completely from that of the salt sector and a decision to copy what appears to be a successful development of the foreign-dominated large-scale gold sector to the salt sector must be thoughtfully considered.

Large-scale, foreign-dominated, gold mining activities began in the country well before Ghana attained her political independence, over half a century ago. Relations and balance between ASM and LSM were therefore settled in favour of LSM long before independence[13]. This, therefore, enabled relative ease in creating the current foreign-dominated large-scale gold mining sector three decades ago; as prevailed prior to independence. With salt, which is markedly different, the relations and balance have historically been in favour of ASM. Consequently, disruption in social and economic activities that will be occasioned with implementing LSM-dominant approach can only be imagined. Without doubt, such an approach will provoke increasing social and economic conflicts on a scale that government agencies would hardly anticipate. This could exact a significant political price from the state, as far greater negative livelihood impacts are produced by LSM activities. The government's failure to implement a similar LSM-dominant strategy in the Ada Songor area, and the difficult times Kensington has gone through in its few years of operation, bear testimony to the consequences of disrupting historical deep-seated relations and balance in the salt sector. What is more, the resultant social and economic conflict and unrest are detrimental. Against this background, state authorities are urged to consider an ASM-dominant approach to develo-

[13] The colonial state had a substantial interest in gold, and in collusion with chiefs, colonial capital and local elites forcibly established dominance of foreign-dominated large-scale gold mining industry. Another fact that makes the case of gold substantially different from that of salt is the relatively small number of livelihoods that are disrupted in the wake of large-scale gold mining activity (often underground). This significantly reduced confrontations and resistance to large-scale gold mining operations.

ping the salt sector. Unfortunately, state agencies spearheading the LSM-dominant strategy in the salt sector are removed from the brunt of communities that fiercely resist such strategies.

c) Regional and Continental Policy Relevance

Continental and regional mining policy frameworks recognize the importance of ASM and stress the need to pay attention to the sector. Three of these frameworks worth mentioning are the Yaoundé Vision on ASM; AMV and EMDP. The Yaoundé Vision was adopted following a seminar organized by UNECA and UNDESA in November 2002 on the theme "Artisanal and Small-scale Mining in Africa: Identifying Best Practices and Building Sustainable Livelihoods of Communities." At the heart of the Yaoundé Vision is the recognition that most ASM activities are not only poverty-driven, but also poverty-alleviating for many rural economies in Africa. It therefore recommends that ASM activities be integrated into local and regional economic development plans and strategies. The situation in virtually all salt-producing communities in Ghana (particularly those within the vicinity of Keta Lagoon) fit well within this frame. Poverty is quite endemic, and salt production is seen by many as a way out. Salt mining has historically been the mainstay of economic activities in those areas. This partly explains why large-scale salt mining companies given licenses and permits to mine salt on the same lands that local producers operate have almost always had a tough time operating. The challenge is usually reduced to issues about land tenure; but a careful examination of the issues reveals that it is more of livelihood and economic than land tenure (which is only remotely economic).

The AMV also emphasizes ASM by offering a strong case in the policy blueprint that references the Yaoundé Vision. The AMV notes that growing economic crisis (which increases unemployment) and decreasing rural livelihood choices (exacerbated by natural and man-made disasters) are the main factors that drive people into ASM. It further recognizes that the ASM sector remains an important source of income generation. Incomes from the sector are relevant for other sectors of the rural economy. The AMV cites the case of Tanzania, where ASM operators earn ten times more than farmers, and incomes from the sector are regularly invested in other economic activities such as shops, taxis, bars, guesthouses and farming. Again, this example mirrors the economic realities in many salt-producing communities in Ghana, where the income generated from salt mining during the dry season becomes relevant for farming in the rainy season. Because of this, ASSM remains an important segment of the economic fabric of rural communities as it is an activity that other economic activities revolve around. Therefore, the ASSM sector requires special attention and support to overcome the myriad challenges resulting in low productivity and underperformance.

The EMDP forcefully argues for a special attention and support to be given to ASM, in particular, and SMEs in the mining sector, which makes a much stronger case for ASM. The EMDP's implementation matrix specifically calls on states to set up technical and financial assistance programmes for the ASM sector, in recognition of the many challenges that confront the sector. Further, Member States in West Africa are encouraged to form cooperatives in the ASM sector for information sharing and technical capacity enhancements. In salt mining communities, there already exist cooperatives (some are relatively strong and others weak) which makes it easier for state agencies to engage. While the Ministry of Trade and Industry has much more routine engagements with these cooperatives (thanks to its donor-funded salt iodization project), the Minerals Commission rarely engages with them. It is therefore not surprising that the local salt producers claim not to have been notified of the grant of salt mining lease to Kensington. Local salt producers in Ghana are obviously not the best of producers, given the challenges confronting their operations (both internal and external). Yet, if state agencies follow recommendations of regional and continental bodies (such as the ECOWAS and AU), the mining policy will be more skewed towards ASM (particularly in salt where production is environmentally friendlier than other sectors such as gold which requires heavy chemicals like mercury).

d) Local Content and Integrated Local Socio-Economic Development Imperative

The Action Plan for implementing the AMV envisages that "the ASM sector can be transformed into an engine for sustainable development, particularly in rural areas", if challenges confronting the sector "are adequately addressed through a series of well-targeted interventions." The programme cluster on ASM therefore aims at creating “a mining sector that harnesses the potential of artisanal and small-scale mining to advance integrated and sustainable rural socio-economic development.” The role a major growth pole, such as the salt mining industry, plays in relatively dormant rural communities to foster broad-based and inclusive growth and development cannot be ignored. This role, however, depends on how production in the industry is organized and whether the operations are owned and controlled locally or by external entities. While operations owned and controlled by foreigners have advantages (especially regarding levels of productivity and output), evidence from other parts of the mining sector suggests that such operations have had rather poor linkages to other sectors of the economy and underperform with job creation. Large-scale mechanized operations are capital intensive, creating relatively fewer job opportunities as compared to labour-intensive small-scale operations. At the early stages of economic development, where there is such a dearth of jobs and abundance of labour, small-scale operations tend to have greater developmental impacts than large-scale operations. Additional benefits are generated when local content, loosely defined to include local equity, local financing, and local procurement of goods and services increase. An ASM-dominant approach enables local people (especially those from communities within which salt mining takes place) to own the greater part of salt-producing ventures. This easily allows profits from salt mining to be invested in other parts of the local economy as pointed out earlier.

e) Land Conundrum and Sustainability

The last argument in support of an ASM-dominant approach is the nature of land regime in salt-producing communities (in lieu of surface right requirements for salt production) and the sustainability of the sector. Undoubtedly, concerns with land regime represent the largest constraint on the industry, especially for foreign-dominated large-scale operations such as Kensington. While the locals can sort out issues relating to land with relative ease and undertake their salt production activities, whenever large-scale operators (particularly foreign-dominated) enter the fray, stakes in land resources viable for salt production run through the roof with associated consequences. Considering the high incidence of poverty in many rural communities, especially coastal areas where salt production is viable, the entry of external economic entities to engage in activities that require huge tracts of land (such as salt mining) invariably affect the value of the land, increasing the stakes in the land. The direct challenges of this include the need for investors to settle claimants and unexpected land-related claims and expenses during the tenure. The situation is worsened when state agencies in Accra (the capital city), effectively issue user rights to the land without proper consultations with actors who hold varying interests in the land and/or utilize the land (such as chiefs, family clans and occupants). The quagmire that results in such circumstances retards socio-economic development as sustainability of such operations becomes difficult to establish. Any serious effort to develop the country's salt potentials must, therefore, be more focused on ASM than LSM. Here also, the case of Ada and ongoing developments at Keta lend credence to the argument being advanced in support of an ASM-dominant approach in developing the salt sector.

7. Conclusions and Recommendations

Despite centuries of salt mining in Ghana, the salt industry is in its nascent state of development. Dominated by artisanal and small-scale producers, the sector has been undergoing some changes over the past few years (particularly since 2011), involving the granting of mining leases to large-scale operators. These leases, especially in and around the Keta Lagoon, where the study was based, cover almost 20,000 acres of land and or lagoon surface area. This development is in line with a decision taken by the MLNR in 2012 to develop fiscal incentives to attract investment (usually foreign-dominated large-scale operations) into the salt industry. It is, however, unclear if these incentives have been developed and what fiscal elements were covered. Meanwhile, the Ministry appears to have overlooked a requirement in the Minerals and Mining Policy, which demands developing a framework to ensure that the livelihood of the indigenous people in salt-producing areas are not jeopardized in land-use challenges and environmental concerns.

Although the study focused on the operations of Kensington Industries Limited (a holder of a mining lease recently granted for large-scale operation in and around the Keta Lagoon) in the Ketu South Municipal Assembly, findings of the study are relevant for the entire salt sector in particular and mining industry in general. The company's operations have been marred with serious problems resulting in some fatalities and destruction of the company's properties (an excavator and tipper truck were burnt in one of several demonstrations organized in resistance to the company's operations). The company has agreed on its own to relinquish 30 per cent of its concession back to the indigenes but the indigenes are demanding for more (up to 60 per cent). The company has further promised that the portion of concession to be relinquished will be well developed into salt pans and concentration ponds. It is important that whatever portion of the concession is relinquished is put through the legal procedures involving an application for and receipt of certificate of surrender by Kensington and the ceded area allocated to local producers. This is to avoid a repeat of a previous ceding agreement between WAGL and local producers that was not respected by Kensington when it acquired the concession from WAGL largely because a surrender certificate was not obtained.

Ghana's large-scale dominated approach to the development of the salt industry without provisions for the livelihoods of indigenes and ensuring environmental stewardship of salt-producing areas has several concerns (in particular sustainability of the industry as demonstrated by resistance to Kensington's operations). Further, the approach betrays prescriptions of emerging regional and continental mining policy regimes (such as AMV and EMDP) that emphasize greater focus on ASM. One of such prescriptions is the AMV's pursuance of "a mining sector that harnesses the potential of artisanal and small-scale mining to stimulate local/national entrepreneurship, improve livelihoods, and advance integrated rural social and economic development."

Additionally, the approach betrays recommendations in the Master Plan for Salt Development in Ghana (1991) which recognizes and affirms the legitimacy of thousands of local salt producers in various salt-producing areas in the country. Any approach that sidelines small-scale producers risks having in its wake a protracted conflictual relationship between ASSM and LSSM operators, as has been the case in gold-mining communities with attendant problems of concession encroachment.

Finally, the manner in which mining leases are granted, with little or no real consultation among state agencies and with affected communities, especially artisanal miners who are often most affected by the grant of such large-scale mining leases that invariably disposes them of their livelihoods, needs a rethink. This clearly does not bode well for the government which is committed to a transparent and accountable governance of exploitation of nationally owned mineral resources. Weak institutional capacity and ineffective environmental impact assessment procedures have meant that affected people are not adequately compensated and on time as required by those procedures. In the case of Kensington, the company insists that it owes no compensation to anyone and has since not compensated most people affected by its operations, despite visible significant livelihood effects suffered by people within and around the company's catchment areas.

In view of the above, the study favours and recommends an ASM-dominant approach to developing Ghana's salt industry. This deals effectively with livelihood concerns that characterize granting of large-scale mining leases.

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9. Annexes

Annex 1: Legislative and other Documents that form the Basis of the Minerals and Mining Sector Legal Framework

List of Primary Legislations	**List of Subsidiary legislations**	**Other Documents (MainlyGuidelines)**
Minerals and Mining Act, 2006 (Act 703)	Minerals and Mining (General) Regulations, 2012 (LI 2173)	The Constitution, 1992
Minerals Commission Act, 1993 (Act 450)	Minerals and Mining (Support Services) Regulations, 2012 (LI 2174)	Ghana's Mining and Environmental Guidelines, 1994
Environmental Protection Agency Act, 1994 (Act 490)	Minerals and Mining (Compensation and Resettlement) Regulations, 2012 (LI 2175)	Operational Guidelines for Mineral Exploration in Forest Reserves for selected Companies, 1997
Water Resources Commission Act, 1996 (Act 522)	Minerals and Mining (Licensing) Regulations, 2012 (LI 2176)	Environmental Guidelines for Mining in Production Forest Reserves in Ghana, 2001
Forestry Commission Act, 1999 (Act 571)	Minerals and Mining (Explosives) Regulations, 2012 (LI 2177)	Guidelines for the Preparation of Feasibility study reports, 2009
Local Government Act, 1993 (Act 462)	Minerals and Mining (Health, Safety, and Technical) Regulations, 2012 (LI 2182)	Mine Closure and Post-closure Policies
Internal Revenue Act, 2000 (Act 592), as amended [Income Tax Act, 2015 (Act 896)]	Environmental Assessment Regulations, 1999 (L.I. 1652) ('Environmental Regulations')	Guidelines for Corporate Social Responsibility in Mining Communities

Ghana Revenue Authority Act, 2009 (Act 791)		
Office of the Administrator of Stool Lands Act, 1994 (Act 481)		

Source: Minerals and Mining Policy of Ghana (2014)

Annex 2: Shareholding Structure of Mining Companies as at December 2015

No.	COMPANY	SHAREHOLDER	%
1	Anglogold Ashanti (Iduapriem) Limited	AngloGold Ashanti(Ghana)Ltd GSM Gold Ltd	30 70
2	Gold Fields (Ghana) Limited – Tarkwa	Gold Fields S.A Government of Ghana	90 10
3	Abosso Goldfields (Ghana) Limited – Darmang	Gold Fields S.A Government of Ghana	90 10
4	Golden Star Resources	Golden Star Resources Government of Ghana	90 10
5	Med Mining Limited	S. Sadik Sitoci Erdal Sitoci Huseyin Kaplan Government of Ghana	45 22.5 22.5 10
6	Ghana Bauxite Company	Bosai Minerals Group Co. Ltd Government of Ghana	80 20
7	Ghana Manganese Company	Ghana International Manganese Government of Ghana	90 10
8	Great Consolidated Diamonds	Dr Joseph Siaw Agyapong Government of Ghana	90 10
9	Central African Gold Mines	Central African Gold Government of Ghana	90 10
10	Chirano Gold Mines	Red Back Mining Inc Government of Ghana	90 10

11	Perseus Mining Ghana Limited	Kojina Resources Limited Government of Ghana	90 10
12	Newmont Ghana Gold Limited	Newmont La Source SAS, France	100
13.	Adamus Resources Limited	Endeavour Mining Corporation Government of Ghana	90 10
14	Newmont Golden Ridge Ltd	Newmont Golden Ridge Holdings, Netherlands	100
15	Mensin Gold Bibiani Ltd	Resolute Mining Ltd Government of Ghana	90 10

Source: Minerals Commission (2016)