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PERFORMANCE AUDIT REPORT
OF THE AUDITOR-GENERAL
ON REGULATING SMALL-SCALE MINING
FOR A SUSTAINABLE ENVIRONMENT
This report has been prepared in compliance with Article 187(2) of the 1992 Constitution of Ghana and Section 13(e) of the Audit Service Act, 2000 (Act 584)

Daniel Yaw Domelevo
Auditor-General
Ghana Audit Service
25 April 2019

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25 April 2019

Dear Rt. Hon. Speaker

PERFORMANCE AUDIT REPORT OF THE AUDITOR-GENERAL ON REGULATING SMALL-SCALE MINING FOR A SUSTAINABLE ENVIRONMENT

I have the honour to submit to you a performance audit report on Regulating Small-Scale Mining for a Sustainable Environment in accordance with my mandate under Article 187(2) of the 1992 Constitution of Ghana and Section 13 of the Audit Service Act, 2000 (Act 584) which require me to carry out performance audits.

2. Two State organisations, Minerals Commission and the Environmental Protection Agency (EPA), are responsible for regulating mining activities in the country to ensure sustainable environment. Nonetheless, Small-Scale Mining (SSM) has caused widespread destruction of livelihood, water bodies, flora and fauna. There have been numerous public outcries against SSM activities, criticising the way the responsible organisations regulate the associated negative environmental impacts.

3. The purpose of the audit was to ascertain how SSM is regulated by Minerals Commission and the Environmental Protection Agency to ensure sustainable environment. The audit focused on SSM for gold and diamond as over 90 percent of licensing and permitting were issued to operators in that category. We also examined designation of areas for SSM by Minerals Commission among others.
4. The audit disclosed that Minerals Commission did not carry out detailed geological investigations on the areas they designated for small-scale mining and it did not also develop and implement strategies to address structural, human resource and logistics gaps aimed at enhancing monitoring.

5. The audit also noted that some small-scale miners operated without mineral licenses and environmental permits because they did not receive them from Minerals Commission and EPA on time, neither did the two institutions collaborate effectively to ensure that SSM companies have both mineral licenses and environmental permits before they commenced operations.

6. The audit further observed that the Inspectorate Division of Minerals Commission issued Operating Permits to small-scale miners without ensuring that they submitted plans that indicated the methods they intended to use for mining, processing of minerals and reclamation; whilst EPA did not also ensure that prospective small-scale miners post reclamation bonds.

7. I accordingly recommended that Minerals Commission should put in place plans to secure funding for detailed geological investigations on areas demarcated for SSM before allocating them to miners and ensure that District Mining Committees are formed and made functional.

8. I also recommended that Minerals Commission should provide EPA with copies of letters requiring proponents to obtain environmental permits and ensure that proponents obtain environmental permits before they issue them with mineral licenses. I also urged EPA to accept from proponents, certified or original copies of documents issued by other organisations to process environmental permits.

9. I further urged the Inspectorate Division of Minerals Commission to ensure that mineral license holders submit plans that indicate the methods for mining, processing of minerals and reclamation before they issue them with operating permits and EPA should also develop benchmarks to assess the adequacy of estimated cost of reclamation submitted by prospective SSM
operators and ensure that they post the approved cost of reclamation as bonds.

10. I trust that this report will meet the approval of Parliament.

Yours faithfully,

DANIEL YAW DOMELEVO
AUDITOR-GENERAL

THE RIGHT HON. SPEAKER
OFFICE OF PARLIAMENT
PARLIAMENT HOUSE
ACCRA
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<th>Full Form</th>
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<tr>
<td>DMC</td>
<td>District Mining Committee</td>
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<td>EPA</td>
<td>Environmental Protection Agency</td>
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<tr>
<td>GNASSM</td>
<td>Ghana National Association of Small-Scale Miners</td>
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<tr>
<td>GPS</td>
<td>Global Positioning System</td>
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<td>HR</td>
<td>Human Resource</td>
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<td>IGF</td>
<td>Internally Generated Funds</td>
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<td>LI</td>
<td>Legislative Instrument</td>
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<tr>
<td>MC</td>
<td>Minerals Commission</td>
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<tr>
<td>MESTI</td>
<td>Ministry of Environment, Science, Technology and Innovation</td>
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<td>MLNR</td>
<td>Ministry of Lands and Natural Resources</td>
</tr>
<tr>
<td>MMDA</td>
<td>Metropolitan/Municipal/District Assembly</td>
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<tr>
<td>NREG</td>
<td>Natural Resources and Environmental Governance</td>
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<tr>
<td>NSP</td>
<td>National Service Person</td>
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<tr>
<td>OP</td>
<td>Operating Permit</td>
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<tr>
<td>PPMD</td>
<td>Policy Planning and Monitoring Division</td>
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<td>SSM</td>
<td>Small-scale Mining</td>
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EXECUTIVE SUMMARY

1. According to the Minerals Commission (MC), small scale mining (SSM) accounted for 34.3 percent of total gold production in 2014. The sector has since 2008 produced almost 100 percent of diamonds mined in the country. In terms of employment, SSM directly employs an estimated one million people who are mostly from the rural communities. In spite of the significant contribution SSM makes to the economy of Ghana, the extraction and processing methods used by the miners expose the immediate and associated environments to pollution and degradation.

2. In Ghana the Minerals Commission (MC) and the Environmental Protection Agency (EPA) are responsible for regulating SSM activities to ensure sustainable environment. Nevertheless, SSM has caused widespread destruction of livelihoods, water bodies, flora and fauna. There have been numerous public outcries against SSM activities, criticising the way MC and EPA regulate the associated negative environmental impacts.

3. The audit was carried out from August to December 2016 and it covered the period January 2012 to December 2016. A follow up was carried out in January 2019 to examine the extent to which MC and EPA have implemented the recommendations the team made on the field.

4. The team used interviews, document reviews, inspections and focus group discussions to gather data for the audit. Our findings and recommendations are as follows:

   i. Designating areas for SSM

   No detailed geological investigations were carried out before designating for SSM

5. We found that MC did not carry out detailed geological investigations at the 113 designated areas before allocating them to miners. This is because apart
from the year 2012, MC did not make funding available for detailed geological investigations. MC also failed to recommend to the Minister for Lands and Natural Resources to gazette all the 113 areas designated for SSM. This is because MC overlooked the function of gazetting designated areas.

6. We recommended that:
   • MC should put in place plans to secure funding for detailed geological investigations on areas demarcated for SSM before allocating them to miners.
   • MC should ensure that all areas viable for SSM are gazetted before they are allocated to prospective miners.

   ii. Licensing and permitting

   a. Some small-scale miners operated without mineral licenses and environmental permits

7. Most of the SSM companies that we visited started operating without licenses and/or permits. This is because they did not receive their permits and licenses on time. The delays were because applicants were often not available for MC and EPA to carry out pre-inspection of their sites. Applicants at MC did not receive information from MC that required them to pay the license fees. On the part of EPA, the few staff at the Mining Department had other responsibilities aside processing of SSM permits. Applicants could also not pay the permit fees on time as EPA had increased its processing and permit fee by 700% since May 2015.

8. We recommended that:
   • MC and EPA should keep reminding the applicants of the agreed time for pre-inspection to enable them show up
   • MC should ensure that applicants immediately receive information that requires them to pay their license fees
• EPA should assign some of the staff in its Mining Department to handle solely, the processing of SSM applications
• EPA should engage stakeholders in the SSM sector to review the processing and permit fees to levels that would encourage timely payment

b. MC and EPA did not effectively collaborate
9. MC and EPA did not effectively collaborate to ensure that they both have common data on SSM companies and that the SSM companies/groups had both licenses and permits to carry out their operations. This is because MC did not provide EPA with copies of letters that required proponents to obtain environmental permits. EPA did not validate the authenticity of photocopies of documents from MC and District Assemblies that proponents submitted for acquisition of environmental permits. Also MC took the decision to process mineral licenses without recourse to environmental permits.

10. We recommended that:
• MC should ensure that they provide EPA with copies of letters requiring proponents to obtain environmental permits.
• EPA should ensure that they accept from proponents certified or original copies of documents issued by other organisations to process environmental permits.
• MC should ensure that proponents obtain environmental permits before they issue them with mineral licenses.

c. Issuing Operating Permits without plans from small-scale miners
11. The Inspectorate Division issued operating permits to SSM companies/groups without ensuring that they submitted their operating plans. As a result Minerals Commission was unable to discern and assess whether the methods for mining and processing will be environmentally
friendly and whether the mined areas will be reclaimed to forestall any form of environmental degradation.

12. We recommended that:
   - The Inspectorate Division should ensure that mineral license holders submit the plans that indicate the respective methods for mining, processing of minerals and reclamation before they issue them with operating permits.

d. Prospective small-scale miners did not post reclamation bonds
13. EPA did not ensure that prospective SSM operators provided reclamation bonds to serve as security for reclamation in the event where mined areas are abandoned. This is because the Agency has not developed a benchmark it can use to assess the cost of reclamation estimated by prospective miners.

14. We recommended that:
   - EPA develops benchmarks to assess the adequacy of estimated cost of reclamation submitted by prospective SSM operators
   - EPA should ensure that prospective SSM operators post the approved cost of reclamation as bonds
   - EPA should ensure that all mined pits abandoned by registered small-scale miners are reclaimed

iii. Monitoring of SSM companies/groups

a. No plans to monitor environmental risks associated with SSM operations
15. The regional and district officers of MC and EPA did not develop and implement monitoring plans that were focused on environmental risks associated with SSM operations. This is because the district officers of MC had not been trained on the preparation of plans for monitoring. Management of MC was also interested in the number of monitoring visits carried out by the district officers rather than associated environmental risks. On the part of EPA
the regional and district officers paid very little attention to monitoring of ongoing SSM operations. They concentrated more on inspections of SSM sites for new permits and renewals as well as the monitoring of other aspects of the environment.

16. We recommended that:

- The Policy, Planning and Monitoring Division (PPMD) of MC should ensure that district officers are given training on the preparation of monitoring plans
- The PPMD of MC should ensure that district officers develop and implement monitoring plans that are focused on environmental risks associated with SSM operations and report on them appropriately
- EPA should prioritise its environmental monitoring activities to include the operations of SSM groups/companies
- EPA should ensure that regional/district officers develop and implement monitoring plans that are focused on environmental risks associated with SSM operations and report on them appropriately

b. Inadequate strategies to address structural, human resource and logistics gaps to enhance monitoring

17. MC has not fully implemented strategies to address its structural, logistics and human resource gaps hence their inability to effectively monitor SSM companies/groups to minimise environmental degradation. This is because the District Mining Committees (DMCs) were either not in place or not inaugurated, whilst those that had been inaugurated were not functional due to lack of funding. Also MC was slow in the recruitment of staff and their vehicles for monitoring were no longer strong to support the job they were required to deliver.

18. We recommended that MC should:

- Ensure that DMCs are formed and inaugurated in the various districts
• Ensure that all inaugurated DMCs are functional
• Expedite the on-going recruitment of staff for the SSM Department
• Continue to plan and implement strategies to address human resource gaps at the district offices
• Put measures in place to ensure that vehicles for monitoring are strong enough to perform their required functions at all times

c. Strategies to address human resource and facility gaps within EPA not fully implemented

19. EPA has not fully implemented strategies to address human resource gaps within the Agency as well as facility gaps at its district/area offices. This was because the Agency had since 2014 been in the process of providing the requisite accommodation at its area offices. Delay by the contractor who was building the Tarkwa district office had also prevented the Agency from completing the office accommodation at the district. EPA was in the process of developing its staff establishment to enable it recruit new staff for the Agency.

20. We recommended that
• EPA should ensure that the area offices are provided with requisite office accommodation to enable the officers carry out their functions
• EPA should ensure that the contractor completes the Tarkwa office within the extended period.
• EPA should ensure that it completes the development of its staff establishment and recruit the required staff for the Agency.

d. Small-scale miners not well educated on compliance with sound environmental management

21. For the period under review, EPA did not plan nor provide education to SSM companies/groups during operations. On the other hand the education that MC provided did not enhance compliance with sound environmental management at the various SSM sites. After training the miners on the use of
mercury retort, MC did not make enough of same available in the market for
the miners to acquire for gold processing. MC could also not reach out to the
SSM companies/groups educate them due to their busy schedules and
remoteness of mining locations.

22. We recommended that:

- EPA should ensure that it includes the provision of education for SSM
  companies/groups in their plans and implement them
- MC should ensure that mercury retort and other equipment used in the
  processing of gold amalgam are made available and used by SSM
  companies/groups
- District officers of MC should ensure that education is provided to SSM
  companies/groups in their respective areas.
CHAPTER ONE
INTRODUCTION

1.0 Definition and contribution of small-scale mining to the economy of Ghana

1. Mining operations in Ghana are carried out by large and small-scale mining companies. In 2014, there were 14 large-scale mining companies and over 1,342 licensed small-scale mining (SSM) companies and groups in the country.

2. Small-scale mining (SSM) in Ghana involves a mining concession of at most 25 acres, with mining licence valid for five years and an environmental permit valid for two years. SSM operators use rudimentary to sophisticated equipment, including pickaxe, shovel, water pumps, trommel and excavators in their operations. Production and capital investment for an individual SSM company are minimal compared with that of a large-scale mining company.

3. SSM for gold and diamonds has been a major economic activity in the country for centuries. According to the Minerals Commission (MC), SSM accounted for 34.3 percent of total gold production in 2014, and since 2008 SSM has produced almost 100 percent of diamonds mined in the country. The SSM sector directly employs an estimated one million people, mostly from rural communities. This represents over 60 percent of the total number of people directly employed in the mining sector.

1.1 Reasons for the Audit

4. Although SSM plays a significant role in the economy of Ghana, the country’s small-scale miners use extraction and processing techniques that expose the immediate and associated environments to damage, such as pollution and degradation.

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1 Minerals Commission, 2014
2 Report on Ghana’s mining sector for the 18th session of the UN Commission on Sustainable Development, 2010

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5. For example, sluicing is a technique whereby water is used to wash dug out soils to recover gold bearing materials. This leaves the unwanted residue in rivers leading to siltation and colouration of the waters. Also the gold bearing materials are mixed with mercury to further separate the gold from the other materials to get an amalgam of gold and mercury. The residue can contaminate the environment when not disposed of carefully. Open-air burning of gold amalgam releases mercury fumes, which pollute the atmosphere and have a negative impact on the health and safety of the mining workers and the surrounding communities.

6. The removal of vegetation cover renders viable agricultural lands incapable of supporting growth of crops. It also exposes the soil to erosion, while uncovered trenches leave other lands desolate. In addition, improper mine closure and lack of reclamation result in acid rock drainage^3.

7. Ghana has two State organizations responsible for regulating mining activities to ensure sustainable environment: the Minerals Commission (MC) and the Environmental Protection Agency (EPA). Nevertheless, SSM has caused widespread destruction of livelihoods, water bodies, flora and fauna. There have been numerous public outcries against SSM activities, criticising the way the responsible organisations regulate the associated negative environmental impacts.

8. For instance, the challenges in the sector feature in documentaries such as the television program “Ghana Gold”^4 (2011) and the award-winning film “Trading Ghana’s Water for Gold”^5 (2013), which have caught the attention of local and international media. They both show how SSM activities have polluted major rivers, such as Pra and Birim, which provide drinking water to over 1,660 towns along their courses.

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^3 Acid rock drainage (ARD) or acid mine drainage refers to the acidic water that is created when sulphide minerals are exposed to air and water and, through a natural chemical reaction, produce sulphuric acid. ARD has the potential to introduce acidity and dissolved metals into water, which can be harmful to fish and aquatic life.


9. Also an article entitled “Why President Mahama Must Suspend Small-Scale Mining” describes the heavy mechanisation of SSM as well as negative effects, such as water pollution and the release of mercury and other toxic and hazardous wastes into the environment.

10. In 2013, the President commissioned a Task Force to curb illegal operations in the SSM sector. According to a report issued by the Ghana Chamber of Mines in 2014, the Task Force’s efforts resulted in the arrest and deportation of foreigners and the prosecution of unlicensed Ghanaians involved in SSM. The report, however, indicated that the Task Force is no longer in place. Despite the Task Force’s intervention, the outcry continued.

11. A 2014 article entitled “Challenges of Small Scale Gold Mining in Ghana” explains how illegal small-scale miners have rendered many acres of land across the country desolate and degraded, leaving behind trenches and holes that are death traps. Apart from soil degradation, the mining causes massive pollution of adjacent water bodies. SSM operators wash mineral-laden soil in the water bodies, using chemicals such as mercury and cyanide; these are poisonous to both humans and animals.

12. These concerns led to the Auditor General, in line with Section 13 of the Audit Service Act, 2000 (Act 584), to commission this audit into how SSM is regulated by Minerals Commission and EPA to ensure a sustainable environment.

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7 Force comprised of Police Service, Ghana Armed Forces, National Security, District Assemblies, and the National Security Sub-Committee on Lands and Natural Resources
8 Performance of the Mining Industry in Ghana, 2013
1.2 Purpose and scope

Purpose

13. The audit examined whether Minerals Commission and Environmental Protection Agency have developed and implemented key elements that promote environmental sustainability in the SSM sector. The key elements were:

- Designating areas for SSM
- LICENSING AND PERMITTING
- Monitoring

Scope

14. The audit focused on SSM for gold and diamond as over 90 percent of licensing and permitting were issued to operators in that category. The audit examined designation of areas for SSM by MC. We also examined the issuance of licences and permits by MC and EPA to SSM companies and groups; and monitoring of the operations of SSM companies/groups by MC and EPA.

15. The audit considered these elements in the context of registered SSM companies/groups within designated areas for SSM. This is because over 90 percent of SSM operations are carried out within the designated areas. Also the registered SSM companies/groups were those for which EPA and MC were required to have records on.

16. The audit covered a period of five years, from January 2012 to December 2016, and a follow up was carried out in January 2019 to examine the extent to which the MC and EPA have implemented the recommendations the team made on the field.

1.3 Audit Objectives, Questions, Criteria and sources

17. The objectives for the audit were to determine whether:

- MC implemented appropriate procedures for designating areas for SSM.
• MC and EPA ensured that prospective SSM companies/groups went through the required procedures to obtain licenses and permits on time for their operations.
• MC and EPA ensured that the required inputs for monitoring were available and used to monitor the operations of SSM companies/groups.

18. The audit questions, criteria and sources are as shown in Appendix A.

1.4 Methods and implementation
19. We purposefully selected 50 out of the over 1,300 registered SSM operations for assessing how the sector was regulated by MC and EPA. We selected the individual SSM operations based on validity of the license; license renewals; environmental issues that were raised in the quarterly reports of MC and EPA on the operations of the companies/groups; and stage of operations.

20. MC has zoned the country into nine SSM districts. The team visited six out of the nine SSM districts as well as the Head Office of MC. The six districts were Akim Oda, Assin Fosu, Bibiani, Bolgatanga, Konongo and Tarkwa. We selected these areas based on the number of SSM companies/groups and the intensity of their operations. The number and intensity of operations were very high in Akim Oda, Bibiani and Tarkwa, followed by Assin Fosu which we considered to be medium, whilst Bolgatanga and Konongo had the lowest number of companies/groups and intensity of operations. The areas were also selected to give a regional balance to the audit. The distribution of the selected SSM operations for the various districts are shown in Appendix B.

21. On the basis of how EPA is structured to oversee environmental issues across the country, we visited the head office and six offices outside Accra. These were Bolgatanga, Akim-Oda, Koforidua, Konongo, Kumasi and Tarkwa, which were responsible for the selected mining districts. The team also visited the Ministry of
Lands and Natural Resources to gather data on the timeliness of the licensing procedure.

22. We used interviews, document reviews, inspections and focus group discussions to gather data for the audit.

Interviews
23. We interviewed the following people:

MC
- Deputy Manager, Policy Planning and Monitoring Division
- Head, Small-Scale Mining Department
- Deputy Head, Small-Scale Mining Department
- Head, Inspectorate Division
- Head, Administration
- Six District Officers and two Assistants

EPA
- Deputy Executive Director, Technical
- Head, Mining Department
- Head, Policy Planning, Monitoring and Evaluation
- Three Regional and Four District Heads
- One Principal Programme Officer
- One Senior Programme Officer
- Head, Human Resource

Others
- The executives of Ghana National Association of Small-Scale Miners
- Members of District Small-Scale Mining Committees
- Operators of small-scale mining companies/groups
- Traditional and opinion leaders
• Members of mining communities

24. Find the roles and responsibilities of the people we interviewed attached as Appendix C.

25. We carried out the interviews to obtain information on designation of SSM sites; licensing and permits of SSM companies/groups; and how their operations were monitored. It also enabled the team understand the impact of these activities on the environment. Part of the interviews was also to validate some of the data we gathered from our review of documents.

**Document review**

26. The team reviewed the list of documents attached as Appendix D. The review provided us with information on how the sector is supposed to be regulated and the current state of affairs. It also enabled us to obtain documentary evidence to support assertions made by persons we interviewed.

**Inspections**

27. We inspected the sites of 20 out of the 50 selected SSM companies/groups within the six mining districts. The 20 companies/groups were selected based on the status\(^{10}\) of their operations and the environmental infractions from our review of quarterly reports from the various districts.

28. This enabled us to ascertain whether the methods used by the companies/groups conform to relevant environmental management conditions of their licenses and permits. We assessed these in terms of extraction, processing and reclamation. We also obtained information on how often EPA and MC visit them as well as the kind of education they provided for them.

**Focus group discussions**

\(^{10}\) Active and inactive sites as well as those whose licenses would expire in a year or less
29. We had focus group discussions with the executive members of the Ghana National Association of Small-Scale Miners; and members of SSM Associations at the various districts. We met the various associations and sought their views on the regulatory processes. We found out from them their challenges on environmental management in during operations and how MC and EPA assisted them to overcome the challenges.
CHAPTER TWO

DESCRIPTION OF THE AUDIT AREA

2.1 Historical Background

30. SSM of gold and diamond in Ghana existed as far back as the fifteenth century as a household economic activity. It reached its peak during the time of European exploration of the country. It was discouraged during the colonial era which led to secret activities and smuggling of proceeds outside the country. Despite contributing nothing in terms of taxes to the State at the time, SSM operations caused significant environmental damage. The increasing awareness of the fact that the continued marginalisation of the SSM sector was detrimental to the economy led to a study into the phenomena, which resulted in its regularisation.

31. Small-scale mining was first legalised when the Small Scale Mining Law, 1989 (PNDCL 218) was passed and policies were formulated to support the implementation of the law. Although the direct impact of mining activities on the environment was known, the law made minimal provisions to address environmental issues associated with SSM operations. At the time the focus was more on promoting and regularising SSM in the country.

32. Currently there are multiple laws governing the SSM industry. These laws are the Minerals and Mining Act, 2006 (Act 703), the Minerals Commission Act, 1993 (Act 450) and related Legislative Instruments; the Environmental Protection Agency Act, 1996 (Act 490) and Environmental Assessment Regulations, 1999 (LI 1652). These laws have integrated the regulation of environmental issues associated with SSM. The State through the laws, has empowered Minerals Commission (MC) and Environmental Protection Agency (EPA) to implement these laws and ensure environmental sustainability of the sector.
2.2 Mandate, Mission, Vision and Functions of MC and EPA

33. The mandate, mission, vision and functions of MC and EPA are as follows:

MC

Mandate

34. MC is mandated by the Minerals Commission Act, 1993 (Act 450) and the Minerals and Mining Act, 2006 (Act 703) to regulate and manage the utilization of the mineral resources of Ghana and the coordination and implementation of policies relating to mining. It is also to ensure compliance with Ghana’s Mining and Mineral Laws and Regulation through effective monitoring.

Mission

35. The Mission of MC is to foster the efficient and effective regulation and management of the utilization of Ghana’s mineral resources.

Vision

36. The Vision of MC is to make the country the leading destination of mining by working with all stakeholders as partners in a safe environment to achieve one common goal: sustainable development through mining.

Functions

37. MC performs the following functions in relation to SSM:

i. Designate areas for SSM and establish district offices and mining committees to manage the areas.

ii. Register and issue licences and operating permits.

iii. Ensure that SSM companies obtain the necessary permits from the Environmental Protection Agency.

iv. Supervise, monitor, and report on the operations and activities of SSM companies.

v. Provide advice as well as training facilities and assistance necessary for effective and efficient SSM operations.
EPA

*Mandate*

38. EPA is mandated by Environmental Protection Agency Act, 1994 (Act 490) to oversee, coordinate and regulate all issues relating to the environment. The Environmental Assessment Regulation, 1999 (LI 1652) supports the implementation of the Act.

*Mission*

39. The Mission of EPA is to co-manage, protect and enhance the country’s environment, in particular, as well as seek common solutions to global environmental problems.

*Vision*

40. EPA’s Vision is to:

- have a country in which all sections of the community value the environment and strive to attain environmentally sustainable development, with sound and efficient resource management, taking into account social and equity issues.
- be an Agency dedicated to continuously improving and conserving the country’s environment in particular.

*Functions*

41. EPA carries out the following functions in relation to SSM:

i. Issue environmental permits

ii. Monitor, supervise, and report on SSM operations

iii. Provide education to SSM companies/groups

iv. Promote effective planning in environmental management

v. Act in liaison and cooperation with government and non-governmental agencies to control pollution and generally protect the environment
2.3 Organisational Structure
42. The organizational structures of MC and EPA are attached as Appendix E.

2.4 Funding

MC
43. SSM Department of MC funds its activities with Internally Generated Funds (IGF) and support from Natural Resources and Environmental Governance (NREG) Fund. Part of the IGF goes into the funding of field activities at the District Offices, whilst the NREG Fund goes into other projects such as exploration and training. MC incurred a total expenditure of GH¢1,020,193.00 on training and exploration for SSM in 2011 and 2012 from NREG funds. Since then there has not been any funding from this source for SSM activities. From 2012 to 2016, MC spent GH¢1,215,807.94 out of the approved budget of GH¢3,429,337.00 for SSM activities from IGF. Find details of IGF funding in Table 1.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>APPROVED</th>
<th>ACTUAL RELEASES (GH¢)</th>
<th>ACTUAL RELEASES (%)</th>
<th>ACTUAL EXPENDITURE (GH¢)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>1,331,498</td>
<td>225,767.13</td>
<td>17%</td>
<td>225,767.13</td>
</tr>
<tr>
<td>2013</td>
<td>511,970</td>
<td>198,389.65</td>
<td>39%</td>
<td>198,389.65</td>
</tr>
<tr>
<td>2014</td>
<td>254,649</td>
<td>262,818.18</td>
<td>103%</td>
<td>262,818.18</td>
</tr>
<tr>
<td>2015</td>
<td>392,920</td>
<td>320,337.67</td>
<td>82%</td>
<td>320,337.67</td>
</tr>
<tr>
<td>2016*</td>
<td>938,300</td>
<td>178,495.31</td>
<td>19%</td>
<td>178,495.31</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3,429,337</td>
<td>1,215,807.94</td>
<td></td>
<td>1,215,807.94</td>
</tr>
</tbody>
</table>

Source: Finance Department, MC 2016 (*as at August 2016)

EPA
44. The Mining Department of EPA funds its activities from Government Subventions and Grants, IGF and NREG Fund as well as the National Environment Fund. EPA did not provide us with a budget line for its SSM activities over the period. Officials of EPA explained that the Agency did not have separate line of
funding to oversee activities of SSM companies/groups. However the Agency’s financial records showed that a total amount of GH¢134,789.00 was incurred as expenditure on SSM companies/groups from 2013 to 2014.

2.5 Key Players
45. The audit team interacted with the following key players:

MC
- Small-Scale Mining Department
- Inspectorate Division
- District Offices

EPA
- Mining Department
- Regional / District Offices

Outside MC and EPA
- Ministry of Lands and Natural Resources
- Ministry of Environment, Science, Technology and Innovation
- District Assemblies
- District Mining Committees
- Small-scale mining companies/groups

46. Their roles are attached as Appendix F.

2.6 Stakeholders
- Ghana National Association of Small-Scale Miners
- District Small-Scale Miners Associations
- Traditional and opinion leaders
- Mining communities

47. Find their roles attached as Appendix F.
2.7 **Current Development**

48. MC has since 2011/2012 been carrying out detailed geological investigations to prove viability of areas for SSM. The aim was to ensure that there was evidence on the level of mineralization in an area before they are designated for SSM. At the time of the audit the geological investigations were at various levels of completion. EPA has since 2015 reviewed its processing fee for permit from GH¢750.00 to GH¢6,000.00.

2.8 **System Description**

49. The system description for regulating SSM is presented in Figure 1. Find the details in Appendix G.

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*Figure 1: System description for the regulation of SSM*
CHAPTER THREE

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

3.0 Introduction

50. The findings, conclusions and recommendations have been categorised under the following:

- Designating areas for small-scale mining (SSM)
- Licensing and permitting of SSM companies/groups
- Monitoring of SSM companies/groups

51. In view of the ban on SSM operations by government in 2017, the team in January 2019, followed-up on the recommendations made in the draft report shared earlier with MC and EPA. The aim was to ascertain whether the ban on SSM activities had occasioned some restructuring of the sector that might lead to the implementation of the recommendations contained in the draft audit report by MC and EPA. The results of the follow-up together with our comments on action taken by MC and EPA on the recommendations have been captured in the report.

3.1 Designating areas for SSM

3.1.1 No detailed geological investigations were carried out before designating for SSM

52. The Minerals Commission is required by Regulation 253 to 256 of Mineral and Mining (Licensing) Regulations, 2012 (LI 2176) to designate an area for SSM. In doing this MC is to:

- identify and demarcate an area;
- carry out detailed geological investigation to know the quantity and quality of mineralisation in the area; and
- recommend the area to the Minister for Lands and Natural Resources to be gazetted.
53. MC is to grant mineral licenses to prospective small-scale miners who apply to carry out mining in the designated areas after gazetting. This is essential to ensure a properly regulated SSM regime that prohibits haphazard operations and environmental degradation.

54. We found from interviews with officials of MC that the Commission identified and demarcated areas for SSM in two ways. One was demarcating areas that prospective large-scale mining companies considered not viable after exploration activities, for SSM. The other method was demarcating areas where illegal mining was prevalent for SSM. MC used these methods to identify and demarcate 113 areas\textsuperscript{11} for SSM, which covered a total area of 3,367.02 km\textsuperscript{2}.

55. We found from interviews with the officials of MC that the 113 areas had not been recommended to the Minister for gazetting. However, MC had granted mineral licenses to companies/groups to carry out SSM in these areas. Failure to gazette the 113 designated areas could expose MC to litigations on the legitimacy of the licenses they have issued for these areas.

56. The team found out that, MC did not carry out detailed geological investigations before designating the 113 areas for SSM. A review of their budget indicates that MC had been budgeting for this activity since 2012 but did not make funds available for the exercise. For the period covered by the audit, it was only in 2012 that MC made funds available from the NREG fund to carry out detailed geological investigations in eight out of the 113 designated areas. These areas, namely Akoase, Datoko, Japa, Prestea, Kutukrom, Asawinso, Ofuase and Berekum, were already occupied by licensed SSM companies/groups.

57. We found from the Mid-year Review Meeting 2015 report that MC had completed detailed geological investigations in three of the eight areas namely Japa, Prestea and Kutukrom. The report show that Prestea and Kutukrom were not

\textsuperscript{11} Map of blocked out areas which provides information on areas designated for SSM in Ghana – December 2015
suitable for SSM as the mineral deposits were deep seated. According to the report
the outcome of Japa was yet to be finalised.

58. MC did not have data on mineral deposits in all the designated areas as they
did not carry out detailed geological investigations in those areas. As a result they
could not guide prospective miners to make informed decisions on whether or not to
carry out mining activities on their respective concessions. We interviewed the
miners and found that areas such as Adankwame, Bondai, Bodwese, Bonsankro and
Donkoto in the Bibiani area had minimal levels of mineralisation contrary to the
expectations of concessionaires.

59. SSM operators including NYB Yamamoto, Skapo Gh. Ltd. and Royal
Roomako at Konongo, Gold Bank Resources and KE Gold at Akim Oda and
Franklolo Ventures at Bibiani also complained of low mineralisation on their
concessions. These assertions were confirmed by officials of MC in an interview on
the status of these operations.

60. We found from the field inspections that these companies had dug pits
haphazardly in search of gold and abandoned them when they did not find the
expected quantity. The pits measures approximately half the size of a standard
football pitch with depth of about 12 metres and were filled with water as shown in
Pictures 1 and 2. Some of the pits had been taken over by illegal SSM operators
(galamsey operators) who used improvised equipment known as ‘chamfaa’ to
extract and wash gold. See Pictures 1.
Conclusion
61. MC did not carry out detailed geological investigations at the 113 designated areas before allocating them to miners. This was because apart from 2012, MC did not make funding available for detailed geological investigations. MC also failed to recommend to the Minister to gazette the 113 areas designated for SSM because the Commission overlooked the requirement of gazetting designated areas.

Recommendation
62. We recommended that MC should:
   - Put in place plans to secure funding for detailed geological investigations on areas demarcated for SSM before allocation to miners.
   - Ensure that all areas viable for SSM are gazetted before they are allocated to prospective miners.

Auditee’s comment
63. Management agreed with our observations and recommendations and added that MC lacked the required funds to carry out detailed geological investigations. Management explained that exploration is capital intensive and without support from government and development partners, it is difficult to investigate large areas at the same time. Management indicated that it would cost approximately GH¢1.5 million to investigate an area of about 100 sq km. On the issue of gazetting,
Management found it legitimate and indicated that they had started gazetting applications from 2017.

64. Our follow-up on the status of implementation of the recommendations disclosed that, MC had planned to collaborate with Geological Survey Department to conduct detail geological surveys. According to MC, the World Bank was to provide $50m to support SSM activities including geological studies, among others. We noted however, that the money was not yet be released, though MC had started gazetting the mineral licenses they issued to SSM operators.

3.2 Licensing and permitting

65. SSM operations are to be licensed and permitted by MC and EPA prior to commencement. SSM operators are required to obtain mineral license and operating permit from MC and environment permit from EPA. The sequence is such that the proponent starts from MC, goes to EPA for environment permit before returning to MC to complete the licensing process and acquire operating permit. The Ministry of Lands and Natural Resources is responsible for authenticating the license agreement.

66. The licensing and permitting of SSM operations are critical in regulating mining activities. During licensing and permitting, MC and EPA get the opportunity to know and assess prospective SSM companies/groups to provide them with the appropriate certifications with conditions for their operations.

67. The Laws\textsuperscript{12} regulating the operations of SSM require MC and EPA to:

- issue licenses and permits in a timely manner;
- collaborate in the process of licensing and permitting;
- ensure that applicants submit appropriate reclamation and operating plans; and
- ensure that SSM companies/groups post appropriate reclamation bonds.

\textsuperscript{12} Minerals and Mining Act, 2006 (Act 703); Minerals and Mining Regulations, 2012 (LI 2176); EPA Act, 1994 (Act 490); Environmental Assessment Regulation, 1999 (LI 1652)
We observed the following:

3.2.1 Small-scale miners operated without mineral licenses and environmental permits

When an applicant has appropriate documentation, processing of the requisite license and permits is expected to be completed within the following time frames upon receipt of application:

- mineral license, 150 days (90 and 60 days at MC and MLNR respectively)
- environment permit, 25 days

A prospective applicant is to obtain operating permit after receiving the mineral license.

70. Our interview of miners, opinion leaders and officials of EPA and MC disclosed that small-scale miners by nature want to start operations as soon as they found an area of interest. They lack the patience to wait for their licences and permits to move to site, especially when they were not issued on time. Others might already be on site before they begin to regularise their operations. It was therefore important for MC and EPA to work within the stipulated time frame or earlier so that proponents could have their licenses and permits before they started operations.

71. Failure on the part of MC and EPA to issue the license and permits on time resulted in applicants commencing operations without licenses and permits. For the period that they operate without licenses and permits, their operations may not be tracked and regulated to ensure proper management of environmental issues.

72. We examined the files of 20 SSM companies/groups to ascertain the waiting time for receipt of mineral license after acceptance of application. Out of the 20 SSM companies/groups, 14 had complete data (i.e. from dates applications were accepted to the dates their licenses were issued). The waiting time (excluding weekends) for each of the 14 companies/groups are shown in Table 2. Thirteen out of the 14 had
waiting time exceeding the required 150 days. The maximum and minimum waiting
times were 934 days and 67 days respectively.

Table 2: Waiting time for issuance of mineral licenses for 14 SSM operations

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of company</th>
<th>Date applied</th>
<th>Date issued</th>
<th>Waiting time (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adom Mining Group</td>
<td>03/06/2013</td>
<td>01/06/2014</td>
<td>260</td>
</tr>
<tr>
<td>2.</td>
<td>Bentess Enterprise, Aniamoa</td>
<td>01/10/2013</td>
<td>20/05/2015</td>
<td>427</td>
</tr>
<tr>
<td>3.</td>
<td>Dennis Mining Group</td>
<td>20/08/2010</td>
<td>19/03/2014</td>
<td>934</td>
</tr>
<tr>
<td>5.</td>
<td>E.K. Agyeman Mining Group</td>
<td>03/06/2013</td>
<td>01/06/2014</td>
<td>260</td>
</tr>
<tr>
<td>6.</td>
<td>F.A. Associates Ltd.</td>
<td>03/06/2010</td>
<td>04/10/2012</td>
<td>611</td>
</tr>
<tr>
<td>7.</td>
<td>Goldbank Resources Gh. Ltd</td>
<td>17/09/2010</td>
<td>27/02/2012</td>
<td>377</td>
</tr>
<tr>
<td>8.</td>
<td>Guuteba Ventures</td>
<td>12/01/2011</td>
<td>11/02/2014</td>
<td>805</td>
</tr>
<tr>
<td>9.</td>
<td>Iddrisu and Sons</td>
<td>01/03/2011</td>
<td>12/12/2013</td>
<td>728</td>
</tr>
<tr>
<td>10.</td>
<td>Namdini Mining Co. Ltd</td>
<td>01/07/2014</td>
<td>23/12/2015</td>
<td>387</td>
</tr>
<tr>
<td>11.</td>
<td>Nana Amissah and Group</td>
<td>24/10/2013</td>
<td>24/01/2014</td>
<td>67</td>
</tr>
<tr>
<td>12.</td>
<td>Obuasi Small Scale Mining Group</td>
<td>15/09/2011</td>
<td>13/03/2015</td>
<td>912</td>
</tr>
<tr>
<td>13.</td>
<td>Owiredu Mining Group</td>
<td>02/12/2013</td>
<td>03/07/2015</td>
<td>415</td>
</tr>
<tr>
<td>14.</td>
<td>Pofco Mining Enterprise</td>
<td>04/05/2012</td>
<td>01/06/2014</td>
<td>541</td>
</tr>
</tbody>
</table>

Source: Audit Team’s analysis of waiting time, December 2016

We analysed the period taken to process each application at the district and head office of MC and MLNR to determine the processing time at the districts and head office of MC and MLNR. The results, as provided in Table 3 shows that applications of 13 out of the 14 SSM companies/groups exceeded the required period at MC, whilst seven SSM applications exceeded the required period at MLNR.

Table 3: Processing times at the district and head office of MC and MLNR for the 14 companies/groups

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of company/group</th>
<th>MC District Office</th>
<th>Head Office</th>
<th>MLNR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adom Mining Group</td>
<td>36</td>
<td>94</td>
<td>130</td>
</tr>
<tr>
<td>2.</td>
<td>Bentess Enterprise, Aniamoa</td>
<td>207</td>
<td>185</td>
<td>35</td>
</tr>
<tr>
<td>3.</td>
<td>Dennis Mining Group</td>
<td>746</td>
<td>156</td>
<td>23</td>
</tr>
</tbody>
</table>
4. Duabin Co-op. Gold Prospecting Society 240 59 75
5. E.K. Agyeman Mining Group 36 55 139
6. F.A. Associates Ltd. 69 308 234
7. Goldbank Resources Gh. Ltd 240 59 78
8. Guuteba Ventures 613 168 15
9. Iddrisu and Sons 108 565 35
10. Namdini Mining Co. Ltd 3 294 64
11. Nana Amissah and Group 10 33 24
12. Obuasi Small Scale Mining Group 12 875 25
13. Owiredu Mining Group 163 204 47
14. Pofco Mining Enterprise 145 250 134

Average waiting time 187.14 236.07 75.57

Source: Team analysis of data on individual SSM operations

74. Officials of MC attributed the delays to the non-availability of applicants to enable MC carry out pre-inspection of their sites. They also indicated that most applicants either failed to provide the required documentations or delayed in the payment of license fees. They added that the District Assemblies on some occasions also delayed in publishing and endorsing the application forms submitted by proponents.

75. However, during our review of the files of the companies/groups, we did not find anything that showed submission of incomplete documentation by applicants. For instance the documentation on the company that obtained its license within the stipulated time (67 working days) were similar to those found on the remaining 13 whose licenses delayed. Contrary to the assertion by MC, we found from our review of files that MC accepted application after they had been published and endorsed by the respective District Assemblies. In effect the issue of publication and endorsement could not be a cause for the delays as we calculated the delays from the date MC accepted the application. On the issue of delayed payment of fees by applicants, our interviews with concessionaires showed that they delayed because they did not receive information from MC requiring them to pay such fees.
As regards environmental permit, the team found complete data on 16 out of the 20 SSM companies/groups it used to analyse waiting time (excluding weekends). The results of the analysis is shown in Table 4. Fifteen out of the 16 companies/groups did not receive their environmental permits within the required 25-day period. Only one company received its permits within time (i.e. 21 days). The maximum waiting time (working days) to receive a permit was 1,038 days, whilst the minimum was 21 days.

**Table 4: Waiting time for the issuance of environmental permit for 16 operations**

<table>
<thead>
<tr>
<th>Name of company</th>
<th>Date applied</th>
<th>Date issued</th>
<th>Waiting time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abisco Mining Ventures</td>
<td>20/04/2011</td>
<td>15/12/2011</td>
<td>172</td>
</tr>
<tr>
<td>Aboso Mining Group</td>
<td>14/09/2007</td>
<td>06/09/2011</td>
<td>1038</td>
</tr>
<tr>
<td>Adom Mining Group</td>
<td>23/09/2013</td>
<td>21/04/2015</td>
<td>412</td>
</tr>
<tr>
<td>Bigus Mining, Kobreso</td>
<td>29/05/2014</td>
<td>16/09/2015</td>
<td>340</td>
</tr>
<tr>
<td>Egoli Ghana Limited</td>
<td>09/05/2014</td>
<td>10/06/2015</td>
<td>284</td>
</tr>
<tr>
<td>F.A. Associates Ltd.</td>
<td>28/06/2014</td>
<td>21/04/2015</td>
<td>212</td>
</tr>
<tr>
<td>Franklolo Ventures, Beposo</td>
<td>07/12/2010</td>
<td>28/01/2011</td>
<td>39</td>
</tr>
<tr>
<td>Guuteba Ventures</td>
<td>17/05/2013</td>
<td>20/06/2014</td>
<td>286</td>
</tr>
<tr>
<td>Iddrisu and Sons</td>
<td>24/11/2011</td>
<td>10/06/2012</td>
<td>142</td>
</tr>
<tr>
<td>JS Mining Ent, Adansi Kenya</td>
<td>07/06/2011</td>
<td>28/07/2011</td>
<td>38</td>
</tr>
<tr>
<td>K.E. Gold Limited</td>
<td>19/06/2013</td>
<td>08/07/2015</td>
<td>536</td>
</tr>
<tr>
<td>Konongo-Odumasi Coop. SSM Association</td>
<td>15/02/2008</td>
<td>19/05/2008</td>
<td>67</td>
</tr>
<tr>
<td>NYB Yamamoto</td>
<td>22/11/2013</td>
<td>21/04/2015</td>
<td>368</td>
</tr>
<tr>
<td>Pasom Ventures</td>
<td>07/12/2010</td>
<td>28/01/2011</td>
<td>39</td>
</tr>
<tr>
<td>Primegem Limited</td>
<td>22/11/2010</td>
<td>02/03/2011</td>
<td>73</td>
</tr>
<tr>
<td>Sambrey Delta Enterprise</td>
<td>07/10/2009</td>
<td>04/11/2009</td>
<td>21</td>
</tr>
</tbody>
</table>

*Source: Team analysis of data on individual SSM operations*

The team analysed the period taken to process each application at the various districts/regional offices and the head office of EPA to determine the time taken to process an application at each of the offices. The results is shown in Table 5. We observed that EPA spent more days at the district/regional offices than the head office to process the applications of three of the 16 operations. For the remaining 13 companies, more time was spent at the head office than the district/regional offices.
in processing permits. On the average the waiting time at head office was higher compared with that of region/district offices.

Table 5: Processing times at the various regional/district and head office of EPA for the 16 companies/groups

<table>
<thead>
<tr>
<th>Name Of Company</th>
<th>District Office</th>
<th>Head Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abisco Mining Ventures, Agogoso</td>
<td>110</td>
<td>62</td>
</tr>
<tr>
<td>Aboso Mining Group</td>
<td>961</td>
<td>77</td>
</tr>
<tr>
<td>Adom Mining Group</td>
<td>31</td>
<td>377</td>
</tr>
<tr>
<td>Bigus Mining, Kobreso</td>
<td>218</td>
<td>117</td>
</tr>
<tr>
<td>Egoli Ghana Limited</td>
<td>42</td>
<td>238</td>
</tr>
<tr>
<td>F.A. Associates Ltd.</td>
<td>187</td>
<td>17</td>
</tr>
<tr>
<td>Franklolo Ventures, Beposo</td>
<td>7</td>
<td>33</td>
</tr>
<tr>
<td>Guuteba Ventures</td>
<td>17</td>
<td>270</td>
</tr>
<tr>
<td>Iddrisu and Sons</td>
<td>5</td>
<td>138</td>
</tr>
<tr>
<td>JS Mining Ent, Adansi Kenya</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>K.E. Gold Limited</td>
<td>228</td>
<td>308</td>
</tr>
<tr>
<td>Konongo-Odumasi Co-op. SSM Association</td>
<td>9</td>
<td>50</td>
</tr>
<tr>
<td>NYB Yamamoto</td>
<td>5</td>
<td>362</td>
</tr>
<tr>
<td>Pasom Ventures</td>
<td>7</td>
<td>33</td>
</tr>
<tr>
<td>Primegem Limited</td>
<td>4</td>
<td>70</td>
</tr>
<tr>
<td>Sambrey Delta Enterprise</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td><strong>Average waiting time</strong></td>
<td><strong>68</strong></td>
<td><strong>144</strong></td>
</tr>
</tbody>
</table>

Source: Team analysis of data on individual SSM operations

78. EPA officials at the district/regional offices explained that the delays were caused by unavailability of representatives of the various SSM companies/groups at the time they were expected to carry out pre-inspection of their sites prior to the processing their permits. We noted that there was a schedule officer responsible for processing applications of SSM for gold, diamond, sand and gravel at the head office. The schedule officer was also responsible for other duties in addition to processing of SSM applications from the various regions/districts. The officer was assisted by a contract staff and National Service Personnel. According to the officer, the work load was heavy in terms of the number of SSM applications she had to
process vis-à-vis the other duties she had to attend to. This delayed the processing of SSM applications.

79. EPA officials at the head office also indicated that the delays in processing of permits were caused by failure of applicants to provide the required documentations. They stated that some of the applications were incomplete whilst others had inconsistencies in company/group name, locations and size of concessions. They also attributed part of the problem to delay by applicants in paying the processing and permit fees.

80. Our review of files of the companies/groups however, did not show incomplete documentation or inconsistencies in the applications submitted by the applicants. We observed that the documentation submitted by the company issued with permit within the stipulated time (i.e. 21 days) was similar to those submitted by the 15 companies whose permits delayed. On the issue of delay payments, our interview of the operators disclosed that they were unable to pay the required processing and permit fees on time as EPA increased the fees. We found from the fees schedule of EPA that the Agency increased its fees as follows:
   - May 2015 to March 2016 – Cedi equivalent of USD 300 and USD 2100 as processing and permit fees respectively
   - April 2016 to date - GH¢1,000.00 and GH¢5,000.00 as processing and permit fees respectively.

81. Our inspection of the various SSM sites disclosed that 18 out of the 20 companies we visited had either their license or permit delayed. They indicated that they commenced operations before they were issued with their license or permits. The license and permits had conditions that guided miners on how to handle environmental issues. As a result, for the period that the license and permit delayed, the companies/groups operated without regard to any permit or license conditions on how environmental issues should be handled.
Conclusion

82. Eighteen out of the 20 SSM companies/groups we visited started operating without licenses and/or permits. This is because they did not receive their permits and licenses on time. The delays were because applicants were often not available for MC and EPA to carry out pre-inspection of their sites. Applicants at MC did not receive information from MC that required them to pay the license fees. The limited staff at the Mining Department of EPA had other responsibilities aside processing of the many SSM permits. Applicants could not also pay the permit fees on time as EPA had increased the processing and permit fee by 700% since May 2015.

Recommendation

83. We recommended that:

- MC and EPA should ensure that applicants show up on the agreed time for pre-inspections
- MC should provide the applicants with information that requires them to pay their license fees
- EPA should assign some of the staff in its Mining Department to handle solely, the processing of SSM applications
- EPA should engage stakeholders in the SSM sector to review the processing and permit fees to levels that would encourage timely payment

Auditees comment

84. Management of MC agreed with the observation and accepted the recommendation. EPA Management also agreed with the observation and indicated that concerns of stakeholders were considered, hence the downward review of the SSM fees from cedi equivalent of USD 2,400.00 (GH₵9,600.00) to GH₵6,000.00.

Auditors comment

85. The feedback we obtained from the miners showed that the fee is still on the higher side. At the exit meeting EPA officials could not provide evidence of
consultations they had with the miners prior to the review. The recommendation therefore stands.

### 3.2.2 MC and EPA did not effectively collaborate

86. MC is required by Section 18(1) of Minerals and Mining Act, 2006 (Act 703) to ensure that a holder of mineral rights obtain environmental permit from EPA. EPA is also required by Section 2(j) of EPA Act, 1994 (Act 490) to liaise with MC to ensure that mineral rights holders possess environmental permit. The collaboration is such that in the course of acquiring SSM license, MC by its Operational Procedure issue letters to applicants that require them to obtain environmental permit from EPA before MC will proceed to issue the mineral license. This collaboration is essential to ensure that both organisations have a similar database on SSM operations and that all such operations have the requisite certifications before they commence operations.

87. Our review of SSM files disclosed that though MC issued letters to proponents to acquire environmental permits the latter did not copy EPA. Providing EPA with copies of the letters will indicate that the proponent had initiated the licensing process at MC.

88. At EPA, proponents submitted among other documents:
   - photocopy of application forms to MC,
   - photocopy of letter of no-objection from the District Assembly indicating that the mining activity can be undertaken in the district, and
   - copies of site plans submitted to MC.

89. We noted from our review of the documents submitted by proponents to EPA that, they were not certified copies from the originating agencies (i.e. MC and the District Assemblies). Although the copies were not certified, EPA accepted and used them to process environmental permits for proponents without verifying the authenticity of the documents from MC or the District Assembly. The EPA officials
explained that the Agency only verified the authenticity of documentation from the other government agencies when the documents lack certain distinguishing criteria. The officials of EPA however, did not explain the distinguishing criteria they verified from the uncertified documents accepted from the proponents.

90. We were informed by MC officials at the head office that the organisation as a matter of policy decided in 2013 to process mineral licenses without requiring proponents to obtain environmental permits. The officials of MC explained that the decision was taken because EPA delayed in issuing proponents with environmental permits, which also delayed issuance of mineral licenses by MC. The officials of MC indicated that the proponents attributed the delay at EPA to the increase of fee over the period as follows:

- 2011 to 2012 - from GH¢100.00 to GH¢750.00
- May 2015 to March 2016 – from GH¢750.00 to the cedi equivalent of USD 2,400.00 (GH¢9,600.00)
- April 2016 to date - GH¢6,000.00

91. According to the officials of MC, proponents were unable to pay the fees at EPA on time. MC had since processed mineral licenses without recourse to environmental permits.

92. The team reviewed 20 SSM files at the head office of MC and noted that 14 companies did not have copies of environmental permits on their files, an indication that MC granted them with licenses without requiring environmental permits. With the six that had environmental permits on their files, we noted that MC issued licenses to five companies/groups when EPA had not issued permits to them. Details are shown in Table 6.
Table 6: SSM companies/groups that got licenses before acquiring environmental permits

<table>
<thead>
<tr>
<th>Company</th>
<th>Date of licenses (MC)</th>
<th>Date of permit (EPA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jihad Mining</td>
<td>26/11/2015</td>
<td>1/2/2016</td>
</tr>
<tr>
<td>Guuteeba Ventures</td>
<td>11/2/2014</td>
<td>20/6/2014</td>
</tr>
<tr>
<td>Iddrisu &amp; Sons Co. Ltd.</td>
<td>5/12/2013</td>
<td>10/6/2014</td>
</tr>
<tr>
<td>Duabun Cooperative Gold</td>
<td>22/2/2012</td>
<td>3/5/2012</td>
</tr>
<tr>
<td>Owiredu Mining Group</td>
<td>3/7/2015</td>
<td>16/9/2015</td>
</tr>
</tbody>
</table>

Source: Audit Team review of company files, September 2016

93. We reviewed 20 SSM files at EPA with the view that if the two entities collaborated in the issuance of licenses and permits to the 50 selected companies/groups, then both should have common data on the companies/groups. We noted however, that MC and EPA had common data on only seven companies/groups as shown in Table 7.

Table 7: Common SSM companies/groups found with MC and EPA; and those who had valid mineral licenses and environmental permits

<table>
<thead>
<tr>
<th>No.</th>
<th>EPA</th>
<th>MC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adom Mining Group*</td>
<td>Adom Mining Group #</td>
</tr>
<tr>
<td>2.</td>
<td>A.T.K. Mining Ltd*</td>
<td>A.T.K. Mining Ltd</td>
</tr>
<tr>
<td>3.</td>
<td>F.A. Associates Limited*</td>
<td>F.A. Associates Limited #</td>
</tr>
<tr>
<td>4.</td>
<td>Guuteeba Ventures*</td>
<td>Guuteeba Ventures</td>
</tr>
<tr>
<td>5.</td>
<td>K.E. Gold Ltd*</td>
<td>K.E. Gold Ltd #</td>
</tr>
<tr>
<td>6.</td>
<td>Iddrisu and Sons Co. Ltd*</td>
<td>Iddrisu and Sons Co. Ltd #</td>
</tr>
<tr>
<td>7.</td>
<td>Owiredu Mining Group*</td>
<td>Owiredu Mining Group #</td>
</tr>
<tr>
<td>8.</td>
<td>Harry Mining Enterprise</td>
<td>Jihad Mining #</td>
</tr>
<tr>
<td>9.</td>
<td>N.Y.B. Yamamoto Ent Ltd</td>
<td>Namdini Mining Co. Ltd.</td>
</tr>
<tr>
<td>10.</td>
<td>Kobi and Group Mining</td>
<td>E.K. Agyemang Mining Ltd</td>
</tr>
<tr>
<td>11.</td>
<td>J.S. Mining Enterprise</td>
<td>Pasom Ventures #</td>
</tr>
<tr>
<td>12.</td>
<td>Abisco Mining Ventures</td>
<td>Pofco Mining Enterprise</td>
</tr>
<tr>
<td>13.</td>
<td>Academy Mining Group</td>
<td>Duabun Cooperative Gold #</td>
</tr>
<tr>
<td>14.</td>
<td>Frank Lolo Ventures</td>
<td>Nana Amissah &amp; Group #</td>
</tr>
<tr>
<td>15.</td>
<td>Primegem Limited</td>
<td>Sambrey Delta Enterprise</td>
</tr>
<tr>
<td>16.</td>
<td>John’s Cargo Services Limited</td>
<td>King Cross Co. Ltd.</td>
</tr>
<tr>
<td>17.</td>
<td>Stejoan Mining Group</td>
<td>Alasko Mining Group</td>
</tr>
<tr>
<td>18.</td>
<td>Egoli Mining Group</td>
<td>Gold Bank Resources Ltd.</td>
</tr>
<tr>
<td>19.</td>
<td>Aboso Mining Group</td>
<td>Dennis Mining Group #</td>
</tr>
<tr>
<td>20.</td>
<td>Afreh and Group</td>
<td>Francis Debrah &amp; Group</td>
</tr>
</tbody>
</table>

Source: Team analysis of data on individual SSM operations, December 2016 (*common companies; #companies with both valid licenses and permits)
94. From Table 7 above, 10 SSM companies/groups had both valid mineral licenses and environmental permits. Twenty-three of them were operating with only mineral licenses.

**Conclusion**

95. MC and EPA did not collaborate effectively to ensure they both had common data on SSM companies and that the SSM companies/groups had licenses and permits to carry out their operations. In processing environmental permits, EPA did not validate the authenticity of photocopies of documents from MC and District Assemblies submitted by proponents. MC processes mineral licenses without recourse to environmental permits.

**Recommendation**

96. We recommended that:

- MC should provide EPA with copies of letters requiring proponents to obtain environmental permits.
- EPA should ensure that they accept from proponents certified or original copies of documents issued by MC and District Assemblies for processing environmental permits.
- MC should ensure that proponents obtain environmental permits before they are issued with mineral licenses.

**Auditee’s comment**

97. Managements of MC and EPA agreed with the findings and accepted the recommendations.

98. The audit team was informed during its follow-up in January 2019 that EPA had taken a decision to rely on MC’s list of gazetted licenses to issue environmental permits. MC also hinted that it will modify its license procedures, such that it will issue and gazette the licenses after which
proponents would be asked to go for environmental permits at EPA. Proponents would further be required to return to MC for Operating Permit before they can start operations.

99. We noted that these are yet to be implemented. We therefore reiterate our recommendations as stated above.

3.2.3 Issuing Operating Permits without plans from small-scale miners

100. As part of the requirements for obtaining operating permit (OP) from MC, an applicant is required by Regulation 472(2) of Minerals and Mining Regulations, 2012 (LI 2182) to submit a plan that explains the mining and processing methods to be used. The plan is to also show how the applicant intends to rehabilitate the mined area. The Inspectorate Division of MC is responsible for ensuring that the plans are submitted.

101. The plans are to provide MC the opportunity to know and assess whether the methods for mining and processing are environmentally friendly and that mined areas are going to be reclaimed to forestall any form of environmental degradation.

102. We examined 15 OP files at MC to determine whether the applicants submitted plans indicating the methods for mining and processing as well as reclamation. We noted that only one SSM company/group submitted its plan out of the seven that were issued with OPs.

103. Our interview of officials from the Inspectorate Division of MC disclosed that the requirement for submission of plans that will indicate the mining and processing methods to be used by SSM companies/groups was not enforced by MC.

104. We also observed that most of the SSM companies/groups that were close to water bodies did not have sedimentation ponds, so they released waste water directly into the water bodies. We also found from the visits that the SSM operators
had dug pits and had left them uncovered. We were informed by EPA and MC officials that contrary to permit conditions, the pits have been left for over three months without concurrent reclamation\(^\text{13}\). These could have been minimised if the miners had been made to submit plans for assessment. See Pictures 3 and 4.

**Picture 5 & 6: SSM Mined pits left for over three months without concurrent reclamation**

![Picture 3](image3.png) ![Picture 4](image4.png)

*Source: Field inspection by Audit Team, October 2016*

**Conclusion**

105. The Inspectorate Division of MC did not enforce the submission of plans by applicants explaining the mining and processing methods as well as reclamation of the mined areas. The miners therefore used unconventional methods for their operations which may not have been approved by the Inspectorate Division if they had submitted their plans for assessment.

**Recommendation**

106. We recommended that the Inspectorate Division of MC should ensure that mineral license holders submit the plans that indicate the respective methods for mining, processing of minerals and reclamation before they issue them with operating permits.

**Auditee’s comment**

107. Management of MC agreed with our findings and accepted the recommendation.

\(^{13}\) The act of rehabilitating disturbed land that is no longer required for operations while mining is on-going
3.2.4 Prospective small-scale miners did not post reclamation bonds

108. EPA is required by Regulation 23 of Environmental Assessment Regulations, 1999 to ensure that mining companies/groups who apply for environmental permit for mining activities post reclamation bonds into an escrow account. Proponents in their application are required to explain the level of degradation likely to be caused by their operations and estimate how much it will cost to reclaim the mined areas. EPA is supposed to assess the proposal and ensure that proponents post bonds commensurate with the level of degradation. It is expected that the bond when posted should be enough to rehabilitate mined sites through backfilling of mine pits with rocks and soil; levelling with top soil and planting of economic trees to re-vegetate the area. The bond serves as security to ensure that degraded mined areas will not be abandoned without reclamation.

109. Our review of the individual reclamation plans showed that the 20 SSM companies/groups, who had concession sizes averaging 22 acres, have stated the level of degradation likely to be caused by their activities. We noted that the likely environmental impacts that were common for the companies/groups were clearing of vegetation, siltation of water bodies; removal of top soil leading to loss of soil fertility and digging of pits; and air and noise pollutions. Others were destruction of economic trees and food crops such as cocoa, oil palm, cassava, plantain and cocoyam.

110. Based on likely environmental impacts, the 20 SSM companies/groups, had explained and estimated the cost of reclaiming the site after their operations. Details of the cost of reclamation submitted by the 20 SSM operators are shown in Table 8.

<table>
<thead>
<tr>
<th>No.</th>
<th>Company/Group</th>
<th>Estimated Reclamation cost (GHC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Abisco Mining Ventures</td>
<td>8,000.00</td>
</tr>
<tr>
<td>2.</td>
<td>Aboso Mining Group</td>
<td>9,650.00</td>
</tr>
<tr>
<td>3.</td>
<td>Adom Mining Group</td>
<td>14,980.00</td>
</tr>
<tr>
<td>5.</td>
<td>F.A Associates Limited</td>
<td>22,350.00</td>
</tr>
</tbody>
</table>
6. PrimGem Ltd 8,000.00
7. Egoli Gh. Ltd 15,000.00
8. Harry Mining Ent. 10,500.00
9. Guuteeba Ventures 10,600.00
10. Afreh and Group 1,000.00
11. Alasco Mining Group 4,000.00
12. Franklolo Ventures 7,000.00
13. John’s Cargo Services Ltd 9,650.00
14. J.S. Mining Enterprise 17,740.00
15. K.E. Gold 7,000.00
16. Kobie Mining Group 3,500.00
17. NYB Yamamoto 9,000.00
18. SteJoan 18,000.00
19. Humble Janneto 5,700.00
20. Skapo Ghana Ltd 13,250.00

Source: Extract from files of the 20 SSM operations – December 2016

111. We found from the files of the 20 SSM companies/groups that none of them posted reclamation bond. This was confirmed in our interviews with EPA officials who said that EPA had not enforced the posting of reclamation bonds by SSM companies/groups.

112. Our interview of EPA officials disclosed that the Agency should have developed a benchmark for assessing the estimated cost of reclamation submitted by proponents to ensure posting of appropriate reclamation bonds.

113. We found abandoned mined sites that have not been reclaimed by the operators during our field inspections. The abandoned mined sites had heaps of sand scattered all over making them undesirable for other activities such as farming. The open pits were also filled with water, serving as death traps and breeding grounds for mosquitoes. See pictures 5 and 6 for examples of abandoned mined sites which have not been reclaimed. In the absence of posted reclamation bonds, EPA had not been able to reclaim such areas. The State may have to spend monies which could have been used for other development projects to reclaim such lands.
Performance Audit Report on Regulating Small-Scale Mining for a Sustainable Environment

Picture 5 & 6: Mined out areas that have not been reclaimed at Kenya (Adansi South) and Anumso (Bosome Freho)

Source: Field inspection by Audit Team, October 2016

Conclusion

114. EPA had not ensured that prospective SSM operators post reclamation bonds to serve as security for reclamation in the event that mined areas are abandoned. This is because the Agency had not developed a benchmark to assess the estimated cost of reclamation submitted by prospective miners.

Recommendation

115. We recommend that EPA should:

- develop benchmarks to assess the adequacy of estimated cost of reclamation submitted by prospective SSM operators
- ensure that prospective SSM operators post the approved cost of reclamation as bonds
- ensure that all mined pits abandoned by registered small-scale miners are reclaimed

Auditee’s comment

116. Management of EPA agreed with the finding and accepted our recommendations.

3.3 Monitoring of SSM companies/groups

117. MC and EPA are required to regularly monitor SSM activities with the aim of ensuring that the companies/groups adhere to permit and licence conditions to
minimise the impact of their operations on the environment. Monitoring of SSM operations are carried out by the district and regional offices of MC and EPA.

118. MC and EPA are required by their operational procedures and the laws\textsuperscript{14} regulating SSM to:

- develop and implement monitoring plans that are focused on environmental risks associated with SSM
- make available the required human resource and logistics and put the required structures in place to facilitate monitoring of SSM companies/groups
- provide the required education and technical assistance to SSM companies/groups to enhance compliance

119. We found the following:

\textbf{3.3.1 No plans to monitor environmental risks associated with SSM operations}

120. The operational procedures of MC and EPA require district and regional officers to develop and implement plans for monitoring SSM companies/groups and report on them. The monitoring plans are supposed to focus on environmental risks associated with SSM operations as outlined in license and permit conditions to minimise pollution of water bodies and the atmosphere and also ensure that SSM companies/groups reclaim mined areas.

121. Our review of documents disclosed that only the Bibiani and Bolgatanga District offices of MC developed monitoring plans for 2015 and 2016. We noted that although the plans for Bibiani and Bolgatanga showed the designated areas and number of routine visits to mining concessions as well as resources required, the plans did not show the environmental risks to be monitored. MC officials we spoke to informed us that most of the districts offices did not prepare plans for monitoring

\textsuperscript{14} Minerals Commission Act, 1993 (Act 450); Environmental Protection Agency Act, 1994 (Act 490); Minerals and Mining Act, 2006 (Act 703)
because the Policy Planning and Monitoring Division (PPMD) have not trained them on how to prepare monitoring plans.

122. We found from the quarterly reports of the six district offices that the officers visited SSM operations within their jurisdictions to monitor their activities. The number of visits undertaken are as shown in Table 9.

<table>
<thead>
<tr>
<th>District/Quarter</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st</td>
<td>2nd</td>
<td>3rd</td>
</tr>
<tr>
<td>Akim Oda</td>
<td>20</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Assin Fosu</td>
<td>16</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>Bibiani</td>
<td>30</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Bolgatanga</td>
<td>3</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Konongo</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Tarkwa</td>
<td>18</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

*Source: Review of quarterly reports from the districts, December 2016*

123. Our review of quarterly reports disclosed that Assin Fosu reported environmental infractions of SSM operations they monitored. The reports showed that environmental challenges identified at the various sites kept recurring as the officers did not ensure that the miners implement recommendations made. The other five districts reported issues associated with illegal mining instead of environmental risks at the registered small-scale mining sites.

124. We requested for the field inspection reports on the visits made by the district officers to confirm the number of visits, but this could not be provided. As a result, we could not confirm the authenticity of the visits as reported by the district officers. Also, as shown in Table 9, the Assin Fosu office reported 36 visits to various SSM sites as at the end of the second quarter of 2015. However, the 2015 Mid-Year Review Meeting report on the various offices indicated that Assin Fosu carried out 51 visits as at the end of the second quarter of 2015.

125. Our review of documents at EPA also showed that all the six offices prepared annual work plans for their activities, and this included monitoring of SSM sites. We
observed that, as noted at MC, they did not also indicate the environmental issues they intended to monitor.

126. The monitoring reports showed that the EPA officials concentrated more on activities that generated income such as processing of new applications and permit renewals. This was confirmed by the district and regional officers when they indicated to us that they usually inspected SSM sites when people applied for permits.

127. We analysed the data from our visits to 20 SSM operations and found that EPA visited two of these operations within the last four weeks prior to our visit. The operators of the remaining 18 said EPA visited their concessions when they were processing their environmental permits, thereafter EPA had never visited their concessions since they started operations.

128. Our review of EPA quarterly reports showed that though the Agency carried out monitoring on activities such as hospitality, manufacturing, general construction, health, energy and mining, they paid little attention to monitoring of SSM activities as shown in Table 10.

### Table 10: Environmental activities that EPA monitored from 2014 to 2016

<table>
<thead>
<tr>
<th>District/Area Office</th>
<th>SSM</th>
<th>Manufacturing</th>
<th>Energy</th>
<th>Health</th>
<th>Hospitality</th>
<th>Agrochemicals</th>
<th>Construction</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tarkwa</td>
<td>16</td>
<td>33</td>
<td>78</td>
<td>13</td>
<td>69</td>
<td>30</td>
<td>41</td>
<td>280</td>
</tr>
<tr>
<td>Bolgatanga</td>
<td>0</td>
<td>0</td>
<td>101</td>
<td>1</td>
<td>111</td>
<td>5</td>
<td>100</td>
<td>318</td>
</tr>
<tr>
<td>Kumasi</td>
<td>4</td>
<td>173</td>
<td>463</td>
<td>162</td>
<td>443</td>
<td>190</td>
<td>100</td>
<td>1535</td>
</tr>
<tr>
<td>Konongo</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>Oda</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>Koforidua</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>20</td>
<td>206</td>
<td>632</td>
<td>176</td>
<td>623</td>
<td>225</td>
<td>241</td>
<td>2133</td>
</tr>
</tbody>
</table>

Source: Review of EPA Quarterly Reports of Regional/District Offices visited, December 2016

129. As shown in the Table above, Akim Oda, Bolgatanga, Konongo and Koforidua had not monitored SSM activities since 2014. The Kumasi and Tarkwa offices respectively visited four and 16 SSM operations from 2014 to 2016. From the
total of 2,133 compliance monitoring carried out by the various offices, only 20 were on SSM operations. Officials of EPA were not able to explain why they carried out only 20 compliance monitoring out of the 2,133.

130. We observed during our visits to SSM sites that operators of six out of the 20 concessions had left the sites for over a year without covering the pits, although the permits issued to them require that they undertake concurrent reclamation and or backfill mined areas three months after operations. We also observed that mining activities were undertaken less than 100m to water bodies when it should have been 100m or more. These SSM companies/groups did not also have properly constructed sedimentation ponds to filter the waste water before being discharged into nearby water bodies. Some had their water pumping machines sited very close to the water bodies and in the process, spill oil into them. See Pictures 7 and 8.

Picture 7 & 8: Uncovered mining pit filled by water at Mampong (Atiwa) and mining activity close to River Offin

Source: Field inspections by Audit Team, November 2016

Conclusion

131. The regional and district officers of MC and EPA did not develop and implement monitoring plans that focused on environmental risks associated with SSM operations. This is because the district officers of MC had not been trained on the preparation of plans for monitoring. Management of MC was also interested in the number of monitoring visits carried out by the district officers rather than associated environmental risks. The regional and district officers of EPA paid very little attention to monitoring of SSM operations and concentrated more on inspection
of SSM sites for new permits and renewals as well as the monitoring of other aspects of the environment.

**Recommendation**

132. We recommended that:

- The Policy, Planning and Monitoring Division (PPMD) of MC should ensure that district officers are trained on the preparation of monitoring plans.
- MC and EPA should ensure that regional and/or district officers plan to monitor environmental risks associated with SSM operations
- EPA should prioritise its environmental monitoring activities to include the operations of SSM groups/companies

**Auditee’s comment**

133. Management of MC and EPA agreed with the findings and accepted the recommendations.

134. The audit team noted during its follow up in January 2019 on the status of implementation of the audit recommendation that EPA had designed a new reporting format to capture environmental issues found with individual SSM companies/groups during monitoring.

135. This as well as the other recommendations were yet to be implemented. We therefore reiterate our recommendations as stated above.

**3.3.2 Inadequate strategies to address structural, human resource and logistics gaps to enhance monitoring**

136. MC is required by Sections 1(3) and 12(1) of Minerals Commission Act, 1993 (Act 450) to develop and execute strategies that will address logistics and human resource gaps with the aim of enhancing monitoring of SSM companies/groups. In accordance with MC’s operational standards, each district office is required to have a
district officer, an assistant, a secretary and a driver. Each district is also to have logistics such as vehicle, GPS\textsuperscript{15} and other monitoring gadgets. Section 92(1&3) of Minerals and Mining Act, 2006 (Act 703) require MC to establish District Mining Committees in every SSM designated area to assist the district offices to monitor SSM companies/groups. The District Mining Committee (DMC) is supposed to have representatives from EPA, District Assemblies, other relevant government institutions and opinion leaders.

137. Developing and implementing strategies to bridge structural, logistics and human resource gaps would ensure that MC have the minimum complement of staff required to carry out effective monitoring of SSM operations. This would enable MC control the operations of SSM companies/groups and minimise the level of degradation and pollution of the environment.

138. We found from our review of the human resource status of the six districts we visited that MC does not have the minimum required number of staff for all the offices as shown in Table 11.

\begin{table}
\centering
\small
\begin{tabular}{|c|cccc|cccc|c|}
\hline
District & Officer & Assistant & Secretary & Driver & Officer & Assistant & Secretary & Driver & Difference \\
\hline
Akim Oda & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 1 & 2 \\
Assin Fosu & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 \\
Bibiani & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 \\
Bolgatanga & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 \\
Konongo & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 \\
Tarkwa & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 \\
Total & 6 & 6 & 6 & 6 & 5 & 2 & 5 & 6 & 5 \\
\hline
\end{tabular}
\caption{Analysis of MC’s human resource in the six mining districts}
\end{table}

139. As shown in the Table, all the offices except Assin Fosu and Bolgatanga, did not have the full complement of the minimum staff required. We found from the quarterly reports that Assin Fosu and Bolgatanga frequently monitored mining

\textsuperscript{15} Global Positioning System
activities than the others. Assin Fosu in particular exceeded its monitoring targets on several occasions, whilst Bolgatanga had an officer dedicated to monitoring activities. The other offices, Akim Oda, Konongo, Tarkwa and Bibiani had an officer each. The officer at Akim Oda in particular did not have a secretary and had to carry out every function of the office except driving. The available staff at the districts that did not have the full complement of the required staff combined technical, administrative and other related functions, and this limited the frequency and time for monitoring SSM companies/groups.

140. Our review of the annual plans of MC disclosed that the Office did not have a strategy in place to address the human resource gap over the period except in 2015 when the Commission approved a budget to recruit additional staff for the SSM Department. In 2015 MC planned to recruit more staff for the SSM Department. During the course of the audit, we were informed that MC was in a process of shortlisting candidates for interview and recruitment.

141. In terms of logistics for monitoring, we found that each of the six offices had a pick-up vehicle and a GPS for monitoring. Information from MC’s transport office indicated that, the vehicles have been used for field activities including monitoring of SSM operations in remote areas with rough terrain for an average period of five years. According to the drivers although the vehicles are serviced on time, they frequently experienced break-downs, which hampered scheduled field visits and related activities.

142. We were informed that MC has 30 DMCs across the country. The Minister had inaugurated 24 out of the 30 to perform their duties. We noted from our field visits that the Akim Oda, Bolgatanga, Tarkwa and Bibiani offices respectively had six, five, two and three of the Committees inaugurated.

143. Our interview with some representatives of inaugurated DMCs indicated that they had not been functional. They explained that the District Assemblies did not
provide them funds for their activities, as a result members could not be paid allowances for meetings and field visits. Assin Fosu and Bibiani respectively have three and six DMCs which had not been inaugurated, while Konongo is yet to establish DMCs.

144. We were informed that the Minister’s busy schedule had prevented him from inaugurating the DMCs. Meanwhile, MC was collaborating with various District Assemblies to establish the DMCs. The team could not however, meet with the Minister to verify the claim.

145. We observed from our field visits that SSM companies/groups were not carrying out their activities in line with license conditions. They had caused various levels of pollution and degradation such as siltation and coloration of water bodies; uncovered mined pits; and scattered heaps of soil making the land unsuitable for agricultural purposes.

Conclusion

146. MC has not fully implemented strategies to address its structural, logistics and human resource gaps hence its inability to effectively monitor SSM companies/groups to minimise environmental degradation. This is because the DMCs were either not in place or not inaugurated, whilst those that had been inaugurated were not functional due to lack of funding. MC was also slow in the implementation of the recruitment of staff; and the vehicles for monitoring were not strong to support the job they were supposed to deliver.

Recommendation

147. We recommended that MC should:

- ensure that DMCs are established and inaugurated in the various districts;
- ensure that all inaugurated DMCs are functional;
- expedite the on-going recruitment of staff for the SSM Department;
• continue to plan and implement strategies to address human resource gaps at the district offices; and
• put measures in place to ensure that vehicles for monitoring are strong to perform the required functions at all times

Auditee’s comment

148. Management of MC agreed with the findings and accepted the recommendations. They also added that the Commission has put in place measures to complete the recruitment process in 2018 and plans to recruit additional staff in subsequent years to meet the human resource requirements.

149. Our follow up in January 2019 on the status of implementation of the audit recommendations indicated that MC had still not completed the recruitment process and had not also formed additional DMCs. MC had however, procured 11 4X4 vehicles for the nine Mining District Offices.

3.3.3 Strategies to address human resource and facility gaps within EPA not fully implemented

150. EPA is required by Section 1(3) and 11(2) of Environmental Protection Agency Act, 1994 (Act 490) to develop and implement strategies that will address facilities, logistics and human resources gaps to enable it monitor SSM operations. The Agency is supposed to establish regional or district offices, and provide them with vehicles and GPS for monitoring to minimise the level of environmental degradation and pollution caused by SSM operations.

151. The team observed that apart from Akim Oda, Konongo and Tarkwa, EPA had provided the offices we visited with at least one cross country vehicle or a pick-up and GPS to enable them perform their function well.

152. We however, noted that the Akim Oda office had a single room within the premises of the District Assembly with a table and a chair and was occupied by a
national service person (NSP) who served as desk officer for EPA at the time of our visit. There was no EPA officer at post. We were informed that there is an Officer in the Regional Office at Koforidua who is responsible for Akim Oda. The EPA office at Konongo on the other hand, had a two-room accommodation with one officer-in-charge and six national service personnel (NSP).

153. In an interview with the EPA officer for Akim Oda at Koforidua and the officer in Konongo, they indicated that their offices were established in 2014 and 2016 respectively. They informed us that EPA was in the process of providing them with the requisite office accommodation, office equipment and furniture. The officers explained that in view of the absence of office accommodation, they have not been able to settle at their respective offices to monitor SSM companies/groups.

154. We noted that the Tarkwa office has a two-room office accommodation with office furniture and computers and accessories. The room occupied by the district officer was big enough to accommodate one office desk. The other room, which is of a standard size, is overcrowded as it accommodates two technical staff, a secretary, an accountant, a driver and five NSPs.

155. The officers at Tarkwa explained that their mandate was broad and require more staff to execute. They indicated that because of the limited office accommodation, they could not request for more staff and this has hampered their ability to monitor SSM operations as required. We observed however, that EPA was constructing a new office accommodation for Tarkwa which is at the roofing stage, though the officers claim was behind schedule as the contractor was expected to have completed in August 2016. Pictures 9 and 10 depict the current status of the office and the one under construction.
156. The head of human resource of EPA informed the team that the office is generally understaffed. Although the Agency has an established staff posts of 800, the current staffing position at the time of the audit is 346, including technical and non-technical personnel. Table 12 shows the number of technical staff at the various offices that we visited.

<table>
<thead>
<tr>
<th>Office</th>
<th>Number of technical staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akim Oda</td>
<td>1</td>
</tr>
<tr>
<td>Bolgatanga</td>
<td>3</td>
</tr>
<tr>
<td>Konongo</td>
<td>1</td>
</tr>
<tr>
<td>Kumasi</td>
<td>5</td>
</tr>
<tr>
<td>Tarkwa</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

Source: Audit team’s review of current staff status of EPA

157. Our interview with EPA officials disclosed that they are responsible for all environmental issues, including SSM. According to the officials, they are overburdened with responsibilities and therefore had to rely on the services of NSP at times, but they also lack the experience to carry out tasks assigned to them.

158. We again found from the head of human resource and the officers at the areas we visited that EPA did not have staff establishment for the various regional and district offices. Although the staff at the areas we visited were overburdened with responsibilities, they could not give us the exact number of staff required.
The team found at the time of the audit that, EPA has a newly approved scheme of service, but the human resource department was yet to sensitise staff of the various departments on the new scheme of service. The head of HR indicated that they were consulting with the various heads to assess and develop new staff establishment, after which they will plan to recruit the required staff.

EPA did not monitor all SSM operations over the period due to inadequate staff at the district and regional offices. Our analysis of EPA’s visits to the companies/groups we inspected disclosed that EPA visited only two out of the 20 in the last four weeks prior to our visit. The remaining 18 informed the audit team that EPA had not visited them since they began operations. We found during the field visits that SSM companies/groups had not carried out concurrent reclamation to cover mined out pits as expected. They also engaged in open burning of gold amalgam which exposed mercury into the environment. See Picture 11.

**Picture 11: Open burning of gold amalgam by SSM companies/groups**

Source: Field inspection by Audit Team, September 2016

**Conclusion**

EPA had not fully implemented strategies to address human resource gaps within the Agency as well as facility gaps at its district/area offices. This is because since 2014, the Agency had been able to provide the requisite accommodation for its
area offices. Delay by the contractor who was building the Tarkwa district office had also prevented the Agency from completing the office accommodation at the district. EPA was in the process of developing its staff establishment to enable it recruit new staff for the Agency.

**Recommendation**

162. We recommended that EPA should ensure that:

- the area offices are provided with requisite office accommodation to enable the officers carry out their functions
- the contractor completes the Tarkwa office within the agreed time
- it completes development of the staff establishment and recruit the required staff for the Agency.

**Auditee’s comment**

163. Management of EPA agreed with our findings and recommendations and added that the Agency had submitted a proposal through its Board to the Ministry of Environment Science, Technology and Innovation to recruit more staff. It added that more staff will be recruited if Government gives them clearance to do so.

164. The audit team noted during its follow-up in January 2019 that EPA had provided its area offices with furnished accommodation and the Tarkwa Office is completed and in use. EPA had received financial clearance to recruit 150 staff of which 75 will be posted to the Mining Department and related offices. The team noted however, that the recruitment had not yet taken place.

165. We therefore urged management to expedite action on the recruitment of new staff to augment the staffing position of the Agency.

**3.3.4 Small-scale miners not well educated on compliance with sound environmental management**

166. MC and EPA are respectively required by Section 90(3c) of Minerals and Mining Act, 2006 (Act 703) and Section 2(m&p) of Environmental Protection Agency
Act, 1994 (Act 490) to provide education for SSM companies/groups during operations. MC is expected to do this through the provision of advice, training and assistance necessary for effective SSM operations. EPA is also required to provide education through seminars and training in the areas of mining, mineral processing and reclamation methods.

167. The district/regional officers of MC and EPA are supposed to provide these assistance to the miners on individual basis or as a group. The essence is to create awareness and enhance compliance with mining regulations. By so doing the miners would carry out their operations in a manner that will safeguard the environment.

168. The team noted from the quarterly reports of the areas visited that MC provided education to the small scale miners on quarterly basis over the period. According to the district officers they usually provided these assistance to the miners during routine visits to SSM sites. We also interviewed the operators of 20 SSM companies/groups who confirmed that the district officers of MC provided them with education during their visits.

169. We noted that the education was generally on good mining practices, health and safety and environmental management. MC also carried out mercury abatement program for the miners. The program sought to advise the miners on the dangers associated with improper use and disposal of mercury when processing gold. In the process, MC introduced the miners to the use of mercury retort in smelting gold amalgam instead of open burning. According to the officials of MC, the mercury retort prevented uncontrolled disposal of residue from mercury into the environment.

170. We however, observed during our visits to the various concessions that the miners were not using mercury retort but were engaged in open burning. The miners explained that the mercury retorts were not available on the market for them to acquire and use for processing gold.
171. From the quarterly reports, we noted that the district officers at Bibiani and Assin Fosu organised training for the various SSM associations within their jurisdictions. The district officer at Bibiani provided education and technical assistance to the group of miners on monthly basis, and they have an active small-scale miners’ association which met once every month. The district officer used their meetings to educate and provide technical assistance to the group. During the period under review, Assin Fosu also organised one of such programs, but according to the officers they did not get most of the miners as expected.

172. The officers in the other districts did not organise group education for the miners over the period. They indicated that previous attempts to organise such programmes failed as it was a challenge to gather most of the miners at one place to educate them. The officers explained that the miners were difficult to reach due to the remoteness of their sites and their busy schedules.

173. We also observed that MC in collaboration with the Ghana National Association of Small-Scale Miners (GNASSM) organised a workshop for selected small scale miners at Tarkwa in 2016. The University of Mines and EPA supported the workshop, which was on pollution control, mining and reclamation methods with emphasis on concurrent reclamation, by providing resource persons.

174. On the part of EPA we found from their quarterly reports that the district and regional officers did not provide any form of education to the miners. The miners at the various sites we visited also said they had not received any such support from EPA over the period.

175. Our interview of EPA officials at their head office showed that EPA did not plan to provide education for small-scale miners within the period. A review of EPA’s 2011 to 2015 strategic plan indicated that the Agency focused its education
and other training programmes on building the capacities of EPA staff and not their clients, which included the SSM companies/groups.

176. During our field visits we observed that SSM companies/groups who were operating did not carry out concurrent reclamation as they had left several pits uncovered. Some had also suspended operations for over a year but had left mined pits uncovered when they should have reclaimed those areas within three months after the suspension. The miners were also engaged in open burning of gold amalgam, which exposed mercury into the atmosphere.

Conclusion

177. EPA failed to provide SSM companies/groups with education. During the period under review, EPA did not plan to provide education for SSM companies/groups in the course of their operations. On the other hand the education provided by MC did not enhance compliance with sound environmental management at the various SSM sites. After training the miners on the use of mercury retort, MC did not ensure that they were readily available on the market for the miners to acquire for gold processing. MC could not also reach out to SSM companies/groups to educate them due to the remoteness of their location and busy schedules.

Recommendation

178. We recommended that:

- EPA should ensure that it includes the provision of education for SSM companies/groups in its plans and implement them.
- MC should ensure that mercury retort and other equipment used in the processing of gold amalgam are made available for use by SSM companies/groups.
- District officers of MC should ensure that education is provided to SSM companies/groups in their respective areas.
Auditee’s Comment

179. Management of MC agreed with the audit findings and recommendations and added that the distribution of the retort was under a project which ended in 2010. The Commission is currently pursuing the introduction of the Sika Bukyia to eliminate mercury usage.

180. Management of EPA stated that they provided the miners with education during field inspections and when they come to the office for their permits.

Auditors comment

181. The education provided by EPA was ad hoc and partly carried before operations, whilst our focus was on education they should have carried out for the miners during the period they were operating.

182. The audit team observed in the course of its follow-up in January 2019 on the status of implementation of the recommendations that, EPA had trained 3,000 SSM operators at University of Mining and Technology and was informed that the plan is to make this activity a continuous project of the Agency. The team was also informed that MC had developed the Sikabukyia technology to replace the mercury retort. However, due to lack of funding they had not been able to produce this equipment in commercial quantities.
### APPENDICES

**Appendix A**

**Audit Questions, Criteria and Sources:**

<table>
<thead>
<tr>
<th>Focus Areas</th>
<th>Audit Question</th>
<th>Criteria</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Designating areas for SSM</td>
<td>1. Did MC develop and implement appropriate procedures for demarcation and control of areas for SSM?</td>
<td>MC has developed and implemented appropriate procedures for demarcation and control of areas for SSM</td>
<td>Regulation 253 to 256 Mineral and Mining (Licensing) Regulations 2012 (LI 2176)</td>
</tr>
<tr>
<td>2. Licensing and permitting</td>
<td>2. Did SSM companies obtain their licences and permits from the MC and EPA on time?</td>
<td>SSM companies obtained their licences and permits from the Commission and the Agency on time.</td>
<td>Section 12, Minerals and Mining Act, 2006 (Act 703) • Regulation 210(3), Minerals and Mining (Licensing) Regulations, 2012 (LI 2176) • Regulation 20, Environmental Assessment Regulations, 1999 (LI 1652)</td>
</tr>
<tr>
<td>3. Did MC and EPA collaborate permitting and licensing to ensure that both entities had records on SSM companies before they start operations?</td>
<td>MC and EPA collaborated permitting and licensing to ensure that they both had records on SSM companies before they started operations.</td>
<td>Sections 2(j) Environmental Protection Agency Act, 1994 (Act 490) • Sections 18(1) Minerals and Mining Act, 2006 (Act 703)</td>
<td></td>
</tr>
<tr>
<td>4. Did the Inspectorate Division (ID) of MC ensure that SSM companies submit appropriate plans before issuing them with Operating Permit (OP)?</td>
<td>ID of MC ensured that SSM companies submitted appropriate plans before they were issued with OP.</td>
<td>Regulations 472(2), Minerals and Mining Regulations, 2012 (LI 2182)</td>
<td></td>
</tr>
<tr>
<td>5. Did EPA ensure that SSM companies posted appropriate reclamation bonds during permitting, based on approved reclamation plans?</td>
<td>EPA ensured that SSM companies post appropriate reclamation bonds, based on approved reclamation plans, during the permitting process.</td>
<td>Regulation 23, Environmental Assessment Regulations, 1999 (LI 1652)</td>
<td></td>
</tr>
<tr>
<td>3. Monitoring</td>
<td>6. Did MC and EPA develop and implement monitoring plans that were focused on environmental risks associated with SSM operations and reported on them?</td>
<td>MC and EPA developed and implemented monitoring plans that were focused on environmental risks associated with SSM operations and reported on them.</td>
<td>Operational Standards of MC and EPA</td>
</tr>
<tr>
<td>Question</td>
<td>Response</td>
<td>Relevant Legislation</td>
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<td></td>
</tr>
<tr>
<td>7. Did MC develop and implement strategies to address structural, human resources and logistics gaps that aimed at enhancing monitoring of SSM companies?</td>
<td>MC developed and implemented strategies that addressed structural, human resources and logistics gaps aimed at enhancing monitoring of SSM companies.</td>
<td>Section 1(3) &amp; 12(1), <em>Minerals Commission Act</em>, 1993 (Act 450) • Sections 92(1)(3), <em>Minerals and Mining Act</em>, 2006 (Act 703)</td>
<td></td>
</tr>
<tr>
<td>8. Did EPA develop and execute strategies to address facilities, logistics and human resources gap that hamper effective monitoring of SSM companies?</td>
<td>EPA has developed and implemented strategies that addressed facilities, logistics and human resources gap, aimed at ensuring effective monitoring of SSM companies.</td>
<td>Sections 1(3), and 11(2), <em>Environmental Protection Agency Act</em>, 1994 (Act 490)</td>
<td></td>
</tr>
<tr>
<td>9. Did MC and EPA provide education and technical assistance to SSM companies to enhance their compliance with relevant environmental management practices?</td>
<td>MC and EPA provided education and technical assistance by SSM companies to enhance their compliance with relevant environmental management practices.</td>
<td>Section 90(3c), <em>Minerals and Mining Act</em>, 2006 (Act 703) • Sections 2(m) and 2(p), <em>Environmental Protection Agency Act</em>, 1994 (Act 490)</td>
<td></td>
</tr>
</tbody>
</table>
# Distribution of Selected SSM Companies/Groups

<table>
<thead>
<tr>
<th>Mining Districts</th>
<th>Selected Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assin Fosu</td>
<td>Jihad Mining</td>
</tr>
<tr>
<td></td>
<td>Kobi And Group Mining</td>
</tr>
<tr>
<td></td>
<td>JS Mining Enterprise</td>
</tr>
<tr>
<td></td>
<td>Abisco Mining Ventures</td>
</tr>
<tr>
<td></td>
<td>Academy Mining Group</td>
</tr>
<tr>
<td></td>
<td>Amakyewaa Awuah Memorial Enterprise</td>
</tr>
<tr>
<td>Bolgatanga</td>
<td>Obuasi Mining Group</td>
</tr>
<tr>
<td></td>
<td>Namdini Mining Group</td>
</tr>
<tr>
<td></td>
<td>Guuteeba Ventures</td>
</tr>
<tr>
<td></td>
<td>Fa Associates Ltd</td>
</tr>
<tr>
<td>Bibiani</td>
<td>E.K. Agyemang Mining Group</td>
</tr>
<tr>
<td></td>
<td>Adom Mining Group</td>
</tr>
<tr>
<td></td>
<td>Pasom Ventures</td>
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<tr>
<td></td>
<td>Frank Lolo Ventures</td>
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<tr>
<td></td>
<td>Pofco Mining Enterprise</td>
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<tr>
<td></td>
<td>Benthess Enterprise</td>
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<tr>
<td></td>
<td>Primegem Limited</td>
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<tr>
<td></td>
<td>Iddrisu &amp; Sons Company Limited</td>
</tr>
<tr>
<td></td>
<td>Humble Janneto Ventures</td>
</tr>
<tr>
<td></td>
<td>Jonoh’s Cargo Services Limited</td>
</tr>
<tr>
<td>Tarkwa</td>
<td>Duadan/Duabun Cooperative Gold</td>
</tr>
<tr>
<td></td>
<td>Nana Amissah And Group</td>
</tr>
<tr>
<td></td>
<td>Stejoan Mining Group</td>
</tr>
<tr>
<td></td>
<td>King’s Cross Mining Company Ltd</td>
</tr>
<tr>
<td></td>
<td>Egoli Mining Group</td>
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<tr>
<td></td>
<td>Nana Adaa And Group</td>
</tr>
<tr>
<td></td>
<td>Alasco Mining Group</td>
</tr>
<tr>
<td></td>
<td>Agnes Cobbina And Group</td>
</tr>
<tr>
<td></td>
<td>Aboso Mining Group</td>
</tr>
<tr>
<td></td>
<td>Sambrey Delta Enterprise</td>
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<tr>
<td>Akim Oda</td>
<td>Hagnela Mining Company Ltd</td>
</tr>
<tr>
<td></td>
<td>Bigus Mining Group</td>
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<tr>
<td></td>
<td>Goldbank Resources Ltd</td>
</tr>
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<td></td>
<td>A.T.K. Mining Ltd</td>
</tr>
<tr>
<td></td>
<td>Owiredu Mining Group</td>
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<tr>
<td></td>
<td>Dennis Mining Group</td>
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<tr>
<td></td>
<td>Junior Mining Enterprise</td>
</tr>
<tr>
<td></td>
<td>Francis Debrah And Group</td>
</tr>
<tr>
<td></td>
<td>Dart Mining Group</td>
</tr>
<tr>
<td></td>
<td>Aseda Mining Group</td>
</tr>
<tr>
<td></td>
<td>Afreh And Group</td>
</tr>
<tr>
<td></td>
<td>K.E. Gold Ltd</td>
</tr>
<tr>
<td>Konongo</td>
<td>John Paulson</td>
</tr>
<tr>
<td></td>
<td>Harry Mining Enterprise</td>
</tr>
<tr>
<td></td>
<td>Messers Xamkas Ent</td>
</tr>
<tr>
<td></td>
<td>Konongo Odumase Cooperative Small Scale Mining</td>
</tr>
<tr>
<td></td>
<td>Unified Ghana Gold Ltd</td>
</tr>
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<td></td>
<td>Skapo Ghana Ltd</td>
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<td></td>
<td>Royal Roomako Ent</td>
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<tr>
<td></td>
<td>NYB Yamamoto Ent Ltd</td>
</tr>
</tbody>
</table>
## Appendix C

### Roles of Officials Interviewed

#### A. Minerals Commission

<table>
<thead>
<tr>
<th>Designation</th>
<th>Roles/Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deputy Manager, Planning and Policy Division</td>
<td>- Make policies and strategies with respect to Small Scale Mining.</td>
</tr>
<tr>
<td>Head, Small-Scale Mining Department</td>
<td>- Supervise the activities of the district officers of the Commission.</td>
</tr>
<tr>
<td></td>
<td>- Vets application for small scale mining licenses.</td>
</tr>
<tr>
<td></td>
<td>- Recommend to the Minister applications that should be issued with a licensed.</td>
</tr>
<tr>
<td></td>
<td>- Assist in the formulation of policies and strategies for the SSM Department</td>
</tr>
<tr>
<td></td>
<td>- Prepare budget for the running of the SSM Department</td>
</tr>
<tr>
<td></td>
<td>- Receive and review quarterly reports from the District Offices</td>
</tr>
<tr>
<td></td>
<td>- Approve the budget for the District Offices</td>
</tr>
<tr>
<td>Deputy Head, Small-Scale Mining Department</td>
<td>- Assist Head Of SSM to vet SSM License Applications</td>
</tr>
<tr>
<td></td>
<td>- Supervise the activities of the District Offices</td>
</tr>
<tr>
<td>Head, Inspectorate Division</td>
<td>- Regulate mining companies based on the mining regulations</td>
</tr>
</tbody>
</table>
|                                                  | - Compliance enforcement of health and safety of
mine workers
- Ensures that the SSM companies/groups conduct their activities in consonance with existing regulations
- Vets operating plans submitted by SSM applicants.
- Issues operating permits to licensed operators.
- Monitor and supervise operations of licensed operators.

| Head, Administration | - Supervise the following units under the Commission: Estate, Human Resource, Registry, Security, Procurement, Transport and Library.
|                       | - Make appropriate recommendations regarding policy and related matters. |

| District Officers and their Assistants | - Vets applications from prospective SSM Companies/Groups
|                                      | - Carry out pre-inspection of proposed sites of prospective SSM companies/groups
|                                      | - Monitor operations of licensed SSM companies/groups
|                                      | - Report on quarterly basis the activities of SSM companies/groups
|                                      | - Provide technical assistance and education to prospective and licensed SSM companies/groups
|                                      | - Assist District Mining Committees in carrying out their functions |
### B. Environmental Protection Agency

<table>
<thead>
<tr>
<th>Designation</th>
<th>Roles/Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deputy Executive Director, Technical</td>
<td>- Provide technical advice in respect of regulating small scale mining of gold and diamond</td>
</tr>
</tbody>
</table>
| Head of Mining Department       | - Responsible for the mining department  
- Responsible for vetting applications for environmental permits to undertake SSM mining activities  
- Recommend to Executive Director to issue environmental permit to SSM prospective applicants  
- Formulate policies and strategies for the running of the SSM Department  
- Prepare budget for the running of the SSM Department |
| Regional/District Heads         | - Receive, vet applications and process SSM applications for environmental permit  
- Forward SSM applications to Head Office for further processing  
- Carryout pre-inspection of proposed sites for SSM operations  
- Monitor the compliance with Permit conditions for SSM  
- Issue quarterly reports on activities of SSM operations |
| Principal Programme Officers    | - Assist the Head of Mining Department in processing environmental permits for prospective SSM applicants  
- Occasional monitoring of activities of permitted |
<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| Senior Programme Officers | - Assist the Principal Programme Officer of the Mining Department in processing environmental permits for prospective SSM applicants  
- Occasional monitoring of activities of permitted SSM operations |
| Head of Human Resource | - Formulate policies and strategies in respect of human resource needs of the Agency  
- Receive applications for employment  
- Communicate human resource matters of the Agency to appropriate staff |

### C. Others

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| The executives of Ghana National Association of Small-Scale Miners | - represents licensed Small Scale miners in the country  
- lobby for resources for members  
- provide inputs into formulation of policies and strategies for the SSM sector |
| Members of District Small-Scale Mining Committees | - Assist the District Offices of EPA and MC in monitoring the activities of SSM operations  
- Assist the District Assemblies and the Opinion Leaders to regulate activities of SSM |
| Operators of small-scale mining companies and groups | - Engage in the mining of gold and diamond  
- Acquire and licensed concessions in respect of |
| Traditional and opinion leaders | - Members of small scale mining associations  
|                               | - Responsible for reclaiming mine out areas  
|                               | - Lease out lands for small scale mining activities  
|                               | - Play advocacy role  
| Members of mining communities | - Employed by small scale mining companies and groups  
|                               | - Engage in small scale mining of gold and diamond. |
Appendix D

List of Documents reviewed

I. Environmental Protection Agency
   • Register of applications for environmental permit
   • Mining Department Annual Reports
   • Work plans for Mining Department
   • Files of 50 selected SSM companies/groups
   • Quarterly Reports from Area Offices
   • Annual Reports
   • Strategic Plan
   • Environmental Assessment Regulations, 1999 (L.I. 1652)
   • EPA Act, 1994 (Act 490)
   • Mining Guidelines

II. Minerals Commission
   • Minerals and Mining (Licensing) Regulations 2012 (LI 2176)
   • Minerals and Mining (Health, Safety and Technical) Regulations 2012 (LI 703)
   • Minerals and Mining (General) Regulations 2012 (LI 2173)
   • Minerals and Mining Act, 2006 (Act 703)
   • Minerals Commission Act, 1993 (Act 450)
   • Files of 50 selected SSM companies/groups
   • Quarterly Reports
   • Mid-Year and End-of-Year Review Reports
   • Annual Budgets
   • Register of Application for Mining License

III. MLNR
   • Register of Application for Mining License
   • Register of Issued Mining Licenses.
Organisational structure for Minerals Commission and Environmental Protection Agency

A. Minerals Commission

B. Environmental Protection Agency

Key

Coordination within Agencies

Collaboration among Agencies

Direct line of reporting

Performance Audit Report on Regulating Small-Scale Mining for a Sustainable Environment
## Roles of Key Players and Stakeholders

<table>
<thead>
<tr>
<th>Key Player</th>
<th>Roles</th>
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<tbody>
<tr>
<td><strong>Minerals Commission</strong></td>
<td></td>
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<tr>
<td>SSM Department</td>
<td>- Supervise the district offices</td>
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<tr>
<td></td>
<td>- Process SSM licenses</td>
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<tr>
<td>Inspectorate Division</td>
<td>- Processing and issuing of Operating Permit</td>
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<tr>
<td></td>
<td>- Inspections of SSM operations</td>
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<tr>
<td>District Officers</td>
<td>- Initiate the processing of SSM licenses</td>
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<tr>
<td></td>
<td>- Monitor operations of SSM companies/groups and report on them</td>
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<tr>
<td></td>
<td>- Provide education and technical assistance to miners</td>
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<tr>
<td></td>
<td>- Assist District Mining Committees</td>
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<tr>
<td><strong>EPA</strong></td>
<td></td>
</tr>
<tr>
<td>Mining Department</td>
<td>- Processing of SSM permit</td>
</tr>
<tr>
<td></td>
<td>- Occasional monitoring of SSM operations</td>
</tr>
<tr>
<td>Regional/District Offices</td>
<td>- Initiate the processing of SSM licenses</td>
</tr>
<tr>
<td></td>
<td>- Monitor operations of SSM companies/groups and report on them</td>
</tr>
<tr>
<td></td>
<td>- Provide education and technical assistance to miners</td>
</tr>
<tr>
<td></td>
<td>- Assist District Mining Committees</td>
</tr>
<tr>
<td><strong>Outside MC and EPA</strong></td>
<td></td>
</tr>
<tr>
<td>MLNR</td>
<td>- Provide policy direction for regulating the small-scale mining sector</td>
</tr>
<tr>
<td></td>
<td>- Vet and approve application for small scale-mining licenses</td>
</tr>
<tr>
<td><strong>MESTI</strong></td>
<td>- Provide policy direction for managing environmental impacts of small scale mining</td>
</tr>
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<td>----------------------------------------------------------------------------------</td>
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</tbody>
</table>
| **District Assemblies** | - Publish notices of proposed sites for SSM  
- Issue letter of consent for small-scale mining applicants |
| **District Mining Committees** | - Assist district officers in managing SSM issues including monitoring |
| **SSM companies/groups** | - Undertake small scale-mining of gold and diamond |

### Stakeholders

| **Ghana National Association of Small-Scale Miners** | - Provides opinions on SSM policies  
- Assist members to secure technical and financial support  
- Advise members on good mining practices |
|---------------------------------------------------|----------------------------------------------------------------------------------|
| **District Small-Scale Miners’ Associations** | - Provides opinions on SSM policies  
- Assist members to secure technical and financial support  
- Advise members on good mining practices |
| **Traditional and Opinion Leaders** | - Owners of the lands used for small-scale mining  
- Members of District Mining Committees  
- Play advocacy role |
| **Mining Communities** | - Source of labour for SSM companies/groups  
- Affected by mining operations |
Appendix G

System Description for the regulation of SSM

Before Operations

**Designation**
- Identification /demarcation of suitable area
- Carry out detailed geological investigations
- Recommendation to Minister for gazetting
- Allocating Concessions to individuals

**Licensing & Permitting**
- Identify area of interest
- Undertake cadastral search
- Submission of license application
- Pre-license site inspection
- Secure environmental permit from
- Publication of license
- Field verification
- Screening
- Issue of offer letter
- Issuing of permit
- Final approval
- Registration of license

**License**
- Operating permit

During Operations

**Provision of education and technical assistance by MC and EPA**
- Compliance monitoring by EPA
- Monitoring by District Officers and Mining Inspectors of MC
- Occasional monitoring by district mining committees

After Operations

- EPA supervises reclamation activities
- MC supervises reclamation activities

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Mission Statement

The Ghana Audit Service exists to promote:

- good governance in the areas of transparency, accountability and probity in the public financial management system of Ghana

By auditing:

- to recognized international auditing standards, the management of public resources

And:

- reporting to Parliament