



ZIMBABWE

**REPORT**

of the

**Auditor-General**

on the

**ENVIRONMENTAL MONITORING OF MINING OPERATIONS**

by the

ENVIRONMENTAL MANAGEMENT AGENCY

under

THE MINISTRY OF ENVIRONMENT, WATER AND CLIMATE

---

*Presented to Parliament of Zimbabwe*

**VFM 2015:01**



## ZIMBABWE

Office of the Comptroller and  
Auditor-General of Zimbabwe  
48 George Silundika Avenue  
Cnr. Fourth Street,  
Harare, Zimbabwe

The Hon. O. C. Z.Muchinguri Kashiri  
Minister of Environment, Water and Climate  
Kaguvi Building  
Central Avenue  
Harare

Dear Madam

I hereby submit my Value for Money Report on Environmental Monitoring of Mining Operations by Environmental Management Agency under the Ministry of Environment, Water and Climate in terms of Section 11 of the Audit Office Act (Chapter 22:18).

Yours Faithfully

M. Chiri (Mrs)  
**AUDITOR-GENERAL**

Harare  
July 14, 2015



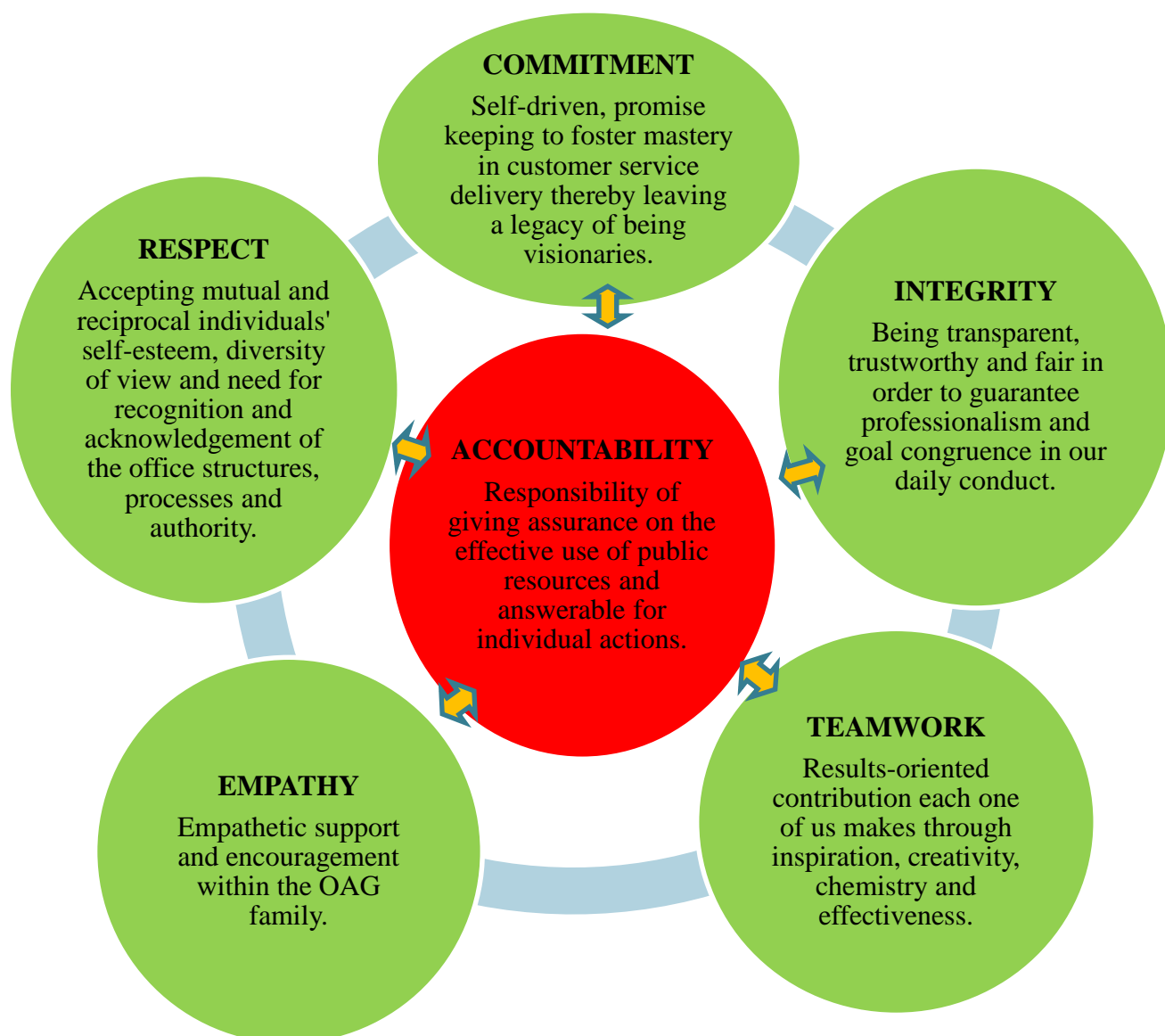
## OAG Vision

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To examine, audit and report to Parliament on the management of public resources of Zimbabwe through committed and motivated staff with the aim of improving accountability and good corporate governance.

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**TABLE OF CONTENTS**

<b>GLOSSARY</b> .....	i-ii
<b>ACRONYM</b> .....	iii
<b>EXECUTIVE SUMMARY</b> .....	iv-vii

## **1. INTRODUCTION**

1.1 Background...	1
1.2 Organizational structure.....	1
1.3 Funding .....	1-2
1.4 Audit Motivation.....	2
1.5 Audit design.....	2-6

## **2. SYSTEMS DESCRIPTION.**

2.1 Functions and Roles of key Stakeholders...	7-8
2.2 Process Description on Monitoring of Mining Operations.....	8-13

## **3. FINDINGS**

3.1 Inadequate Bi-annual Environmental Audits.....	14-15
3.2 Failure to control miners operating without EIA certificates .....	15-18
3.3 Inadequate monitoring of EIA certificates renewal... ..	18-19
3.4 Failure to Monitor Discharge and Emissions in Mines .....	19-21
3.5 Failure to implement adequate measures against environmental offenders... ..	21-23
3.6 Poor maintenance of records.....	24-25
3.7 Inadequate human resources .....	25-27

4.RECOMMENDATIONS.....	28-29
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ANNEXURES.....	30-40
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## **GLOSSARY OF TERMS**

<b>Ambient air</b>	the mixture of gases with varying amounts of moisture and particular matter that is harmless to humans and natural ecosystem.
<b>Aquatic creatures</b>	animals or plants living in or near water.
<b>Bio-diversity</b>	is the degree of variation of life forms within a given ecosystem. Biodiversity is thus a measure of the health of an ecosystem.
<b>Conservancy</b>	an area that is set aside to conserve natural species.
<b>Closed System</b>	it is a processing system that avoids discharge of effluent into the environment.
<b>Cyanidation</b>	is a process whereby cyanide chemical is applied on sludge or mud in order to capture the remaining gold.
<b>Discharge Licence</b>	is a licence given to operators to regulate discharge into the environment.
<b>Ecological impact</b>	how activities and processes being carried out affect the ecosystem.
<b>Ecosystem</b>	is the interdependence of the living and non- living factors of an ecological system which includes water, air, soil, humans, animals, micro-organisms and vegetation.
<b>Ecologically fragile</b>	where the environment is weak.
<b>Effluent</b>	waste water or other fluid originating from domestic, agricultural or industrial activity, whether the water or fluid is treated or untreated and whether it is discharged directly or indirectly into the environment.
<b>Emission</b>	is any gas, fumes, smoke, dust or odour originating from industrial activity, or processes.
<b>Environmental audit</b>	is the systematic documentation and periodic objective evaluation of the protection and management of the environment.
<b>Fauna and flora</b>	animals and plant life.
<b>Hazardous substance</b>	any substance, whether solid, liquid, or gaseous or any organism which is injurious to human health or the environment.

<b>Hazardous waste</b>	waste which is poisonous, corrosive, noxious, explosive, inflammable, radioactive, toxic or harmful to the environment.
<b>Invasive alien species</b>	exotic plants which have become naturalized and threaten the existence of indigenous species by penetrating and replacing indigenous vegetation.
<b>Mineral Rights</b>	refers to the dominium and the right to search mine and dispose minerals, mineral oils and natural gases evidenced by the issue of license from the licencing body.
<b>Open cast</b>	refers to a method of extracting rock or minerals from the earth in an open pit.
<b>Prescribed activity</b>	is any project that requires an Environmental Impact Assessment before being implemented.
<b>Pristine woodlands</b>	these are original, untouched woodlands.
<b>Prospectus</b>	is the initial information document on which a determination of the need for an EIA study is made.
<b>Slimes Dam</b>	a storage facility for all fine waste products from the processing plant.
<b>Social impact</b>	how activities and processes being carried out affect the community.
<b>Solid waste</b>	includes commercial or industrial material, in a solid form, which is deposited into the environment in such volume, composition or manner as to cause pollution.

## **ACRONYM**

<b>EIA</b>	Environmental Impact Assessment
<b>EMA</b>	Environmental Management Agency
<b>EMP</b>	Environmental Management Plan
<b>LEAPs</b>	Local Environmental Action Plans
<b>SHE</b>	Safety, Health and Environment
<b>SI</b>	Statutory Instrument
<b>The Act</b>	Environmental Management Act [ <i>Chapter 20:27</i> ]

## **EXECUTIVE SUMMARY**

The Environmental Management Agency (EMA) is a parastatal established under the Environmental Management Act [*Chapter 20:27*] of 2002. It is a corporate body under the Ministry of Environment, Water and Climate formerly Ministry of Environment and Natural Resources Management.

The audit was motivated by press reports on pollution and environmental degradation resulting from mining activities. The Zimbabwe Independent Newspaper of March 31, 2011 reported that in Marange diamond fields, diamond mining companies were discharging hazardous waste in Odzi river resulting in the death of an estimated 100 cattle and possible contamination of water sources.

The purpose of my audit is to report on the extent to which EMA is adequately monitoring environmental issues in mining operations.

### **Summary of Findings**

My audit revealed shortcomings in the monitoring of environmental issues in mining operations by EMA. Shortcomings were on issues of inadequate environmental audits, failure to control miners operating without Environmental Impact Assessment (EIA) certification, inadequate monitoring of EIA certificate renewal, failure to monitor discharge and emissions in mines, failure to implement adequate measures against environmental offenders, poor maintenance of records and inadequate human resources.

1. EMA was not adequately carrying out biannual audits to check compliance by miners with EIA regulations. From a total of 1468 mining projects granted EIA certification during 2009 to September 2012, at least 2936 bi-annual audits were supposed to be carried out. However, the Agency only conducted 372 audits (13%) giving a variance of 2564 (87%). If bi-annual environmental audits are not conducted on each mine, protective measures prescribed in the EIA document may not be implemented by the miners resulting in threat or damage to the environment.
2. From documentary review of reports on blitz operations conducted in eight provinces from 2010 to 2012, I established that a total of 986 mines were found operating without Environmental Impact Assessment Certificates. Documentary review of EMA inspection reports revealed that implementation of mining activities without EIA certification was a result of lack of co-ordination of operations between EMA and the Ministry of Mines and Mining Development which is the mines and minerals licensing authority. Miners were being issued mining rights without EIA certificates.
3. EMA was not making follow-ups on expired EIA certificates. A sample of 75 out of 576 mining projects issued with EIA certificates during 2007, 2008 and 2009 showed that only one project, Rose of Gold in Midlands Province had renewed its EIA certificate on August 3, 2012. If EIA renewals are not done, it is not possible for EMA

to monitor new developments on site and ensure that changes in the EMP are incorporated.

4. I noted that mining operators were operating without discharge licences. Review of the EIA register at EMA head office revealed that a sample of 16 milling miners were not issued with discharge licences. Furthermore, there was no evidence that these operators had been fined in terms of Section 17(1)(b) of Statutory Instrument 12 of 2007. Mining without discharge licences results in unregulated environmental pollution of air, land and water given that the discharge and emission licence will specify how an operator will carry out their discharge into the environment.

Furthermore, EMA was taking long to issue discharge licences. The time taken to process a licence ranged between 1 month and 10 months. On average it was taking 4 months to process a licence instead of the stipulated one month. I also noted that provincial offices were delaying in sending licence applications to head office. Application forms were sent more than 1 month up to a maximum of 8 months after being received.

5. The Environmental Management Agency's penalty system proved to be non-deterrent because there were some offenders who had been penalised more than once for environmental pollution and had paid for that same offence but were still operating without taking any measures to prevent environmental pollution. For instance, Anjin Investment and Marange Resources had been penalised and paid fines 3 times for discharging effluent into the Odzi river.

Enforcing compliance through the courts had also proved ineffective as environmental offences were not being given priority in comparison to other criminal cases. EMA presented cases to court in 2011 but as at the time of audit October 31, 2012 the cases were still not heard.

6. At the time of my audit, it was noted that EMA was not updating their records. The register availed at Head Office at the time of audit contained only 576 EIA certified projects. However after carrying out documentary review in Mashonaland Central, Manicaland and Matabeleland North Provinces there were 1468 certified projects in the 3 provinces alone. In addition in Manicaland Province I was only availed with discharge licence registers for the period 2011 and 2012 and no records were available for 2009 to 2010.
7. I noted that EMA had a shortage of staff. Documentary review of staff establishment register indicated that EMA had 275 officers who were directly involved in environmental management. This was 62% of the total authorised staff establishment of 447 reflecting a deficiency of 38% of the required staff. The vacant positions are mainly for important specialists needed in the monitoring of the environment who are environmental officers, technicians, planning officers and analysts. Interviews with

EMA management revealed that shortage of staff was caused by the government freeze on recruitment by government institutions.

Interviews with provincial officers in the three provinces visited indicated that there was only one post of environmental officer in the EIA and Ecosystems Protection section for each province. This was also evident on the organisational structure. The officer holding the post was responsible for carrying out statutory audits, EIA certificates renewal and inspection of sites for new EIA submitted.

### **Recommendations**

My recommendations on how EMA could improve on environmental monitoring in mining operations are summarised below:

1. EMA should prioritise and set realistic plans and programmes to carry out bi-annual environmental audits to ensure that miners are complying with EIA regulations. Provincial offices should annually come up with balanced programmes on the numbers of blitz and EIA compliant audits to be conducted.
2. EMA must engage the Ministry of Mines and Mining Development who are the licensing body, to partner in informing and educating miners on the need to comply with Environmental Impact Assessment requirements before implementing their prescribed projects. Coordination between EMA and Ministry of Mines and Mining Development should be improved to ensure that an approved EIA is available for every licence issued. EMA must also formulate plans or programmes to follow up on blitz operations to ensure that miners who were previously fined comply.
3. EMA should formulate a sound EIA renewal system to ensure that environmental monitoring is efficiently and effectively carried out. EMA should also maintain updated registers for all projects with EIA certificates for easy monitoring of the renewal process.
4. EMA should put systems in place that ensure applications for discharge licences are sent to head office in time to avoid delays in issuing of licences. EMA should also computerise their database so that they can identify and determine all operators with outstanding licences as well as those who would have made direct payments at EMA head office.
5. For effective monitoring and control of environmental pollution there is need for EMA to comply with Section 4(2)(g) of the Environmental Management Act [*Chapter 20:27*] to ensure that offenders meet the costs of remedying such pollution or environmental degradation and any resultant adverse health effects.

EMA is a signatory to the United Nations Environment Programme (UNEP) Multilateral Environmental Agreement Guideline 40(c) which states that Governments

must impose appropriate and proportionate penalties for environmental law violations, which would encourage compliance by raising the cost of non-compliance above that of compliance. For environmental crime, additional deterrent effect can be obtained through sanctions such as imprisonment, fines, confiscation of equipment and other materials, disbarment from practice or trade and confiscation of the proceeds of environmental crime. Therefore EMA should comply with these international regulations on environmental pollution.

EMA should engage the Ministry of Justice, Legal and Parliamentary Affairs to ensure environmental cases are heard in time. Establishment of environmental courts can be considered.

6. Registers serve as the data base for the mining activities from which operators who have not renewed their licences are identified. EMA should ensure that all licences issued are recorded in the registers and regularly checked by an independent person or senior officer to ensure the registers are updated and made available for public inspection. EMA should seriously consider computerizing its recording system to facilitate easy data management. This will assist with an automatic reminder whenever an operator's licence is due for renewal or payment for discharge licences is due to facilitate follow ups.
7. EMA should engage Ministry of Public Service, Labour and Social Welfare regularly for authority to fill in the vacant posts in order to improve operations. A job evaluation exercise should also be considered in order to establish the number of officers required in order for the agency to operate effectively.

## CHAPTER 1

### 1. INTRODUCTION

#### 1.1 Background

The Environmental Management Agency (EMA) is a parastatal under the Ministry of Environment, Water and Climate formerly known as the Ministry of Environment and Natural Resources Management and was created to regulate, monitor and manage environmental issues in Zimbabwe. The Environmental Management Agency was established through the Environmental Management Act [Chapter 20:27] as the Government's principal agency in environmental management issues. Section 9 of the Environmental Management Act [Chapter 20:27] gives EMA the mandate to assist in the management and protection of the environment and to promote environmental issues in Zimbabwe.

Its vision is "To be a world class lead Agency in sustainable and integrated environmental management." and its mission is "To promote sustainable management of natural resources and protection of the environment with stakeholder participation".

The goals of the Environmental Management Agency are:

- To enable policy, institutional and legal framework.
- To ensure a comprehensive, accessible and reliable environmental information systems.
- To ensure a clean, safe and healthy environment.

#### 1.2 Organizational Structure

The Minister of Environment and Natural Resources Management has overall responsibility for management of environmental issues. Below the Minister is the Environmental Management Board which controls the operations of the Agency. The Director-General is the overall head of the organization's operations. The Agency is comprised of two operational and two support departments namely; Environmental Protection, Environmental Management Systems, Human Resources, and Finance and Administration. **Refer to Annexure A (Organogram)** for details on the Agency's structure and reporting relationships.

#### 1.3 Funding

Section 42 of the Environmental Management Act [Chapter 20:27] provides that the funds of the Environmental Management Agency shall consist of;

- funds that may be payable to the Agency from moneys appropriated for the purpose by an Act of Parliament,
- fees or charges in respect of any services rendered by the Agency or received by the Agency in terms of the Act and,
- any other moneys that may accrue to the Agency, whether in the course of its operations or otherwise. For the period under review other income comprised of administration fees, bank interest received, insurance proceeds, interest

from short term investments, Miscellaneous revenue, non-submission fees, tender documents fees, recovered debtors, penalty fees, rentals and spot fines. Refer to **Annexure B** for details.

Details for the funding of the Agency for the period January 2009- December 2012 are provided in Table 1 below.

**Table 1.Funding**

INCOME	2009 USD	2010 USD	2011 USD	2012 USD
<b>Government grant</b>	217 893	847 432	1 666 310	2 016 639
<b>Discharge permit fees</b>	1 936 587	5 713 086	11 007 105	10 413 825
<b>Other</b>	1 040 091	2 438 157	1 237 668	1 717 476
<b>Total</b>	<b>3 194 571</b>	<b>8 998 675</b>	<b>13 947 083</b>	<b>14 147 940</b>

*Source: EMA financial statements 2009-11 and 2012 financial budget.*

#### **1.4 Audit Motivation**

The audit was motivated by press reports of pollution and environmental degradation as a result of mining activities. According to the Financial Gazette dated June 15, 2012, Africa Sunlight Energy company was commercially exploiting methane gas in a protected conservancy area in Matabeleland North which posed threats to the hunting and photographic safaris which are a major source of income to The Gwayi Valley Intensive Conservation Area. The same article revealed that open-cast coal mining had affected 32 farms surrounding the conservancy area by displacing more than 1000 people who resided in the area. The Zimbabwe Independent of March 31, 2011 reported that in Marange diamond fields, diamond mining companies were discharging hazardous waste in Odzi river resulting in the death of an estimated 100 cattle and possible contamination of water sources.

#### **1.5 Audit Design**

##### **1.5.1 Audit Objective**

The objective of my audit is to assess the extent to which the EMA is monitoring environmental issues in mining operations.

##### **1.5.2 Scope of Audit**

My audit focused on the environmental monitoring of mining operations by EMA covering the period January 2009 to September 2012.

##### **1.5.3 Audit Questions**

After determining the audit problem the audit objective and the audit scope, I designed the following specific audit questions to test in order to gather information that helped to address the audit objective within the audit scope.

**AQ.1** Does EMA perform environmental audits?

**AQ.2** Does EMA monitor whether miners have valid EIA certificates and comply with environmental regulations?

**AQ.3** To what extent is EMA applying deterrent measures against environmental offences?

**AQ.4** To what extent is EMA monitoring miners to ensure they operate with discharge licences?

**AQ.5** Does EMA maintain up to date records?

**AQ.6** Does EMA have adequate human resources to monitor environmental issues?

#### **1.5.3.1 Assessment Criteria**

The following assessment criteria were used to determine whether or not EMA meets expectations.

##### **Criteria AQ.1**

- According to Section 13 (1) of Statutory Instrument 7 of 2007, EMA shall carry out bi-annual environmental audits to ensure that all projects being implemented are in compliance with Environmental Impact Assessment (EIA) regulations.

##### **Criteria AQ.2**

- According to Section 97 of the Environmental Management Act, a prescribed project should have an EIA certificate. The certificate remains valid only when conditions imposed by the Director-General in regard to the issue of the certificate are complied with. EMA is empowered by the Act to penalise any person who knowingly implements a project without a valid EIA certificate. EMA may serve an order to the person who knowingly implements a project in contravention of the Act; ordering that person to mitigate the effects of any adverse environmental impact in the manner specified in the order and where in the opinion of EMA, it is not possible to mitigate any adverse environmental impact, ordering that person to destroy any works undertaken in connection with the projects. According to section 26(1) of Statutory Instrument 7 of 2007, the agency may issue to any offender a spot fine which ranges from level 1 to 14 (currently set between \$5 and \$5000).

##### **Criteria AQ.3**

- According to Section (4)(2)(g) of the Environmental Management Act any person who causes pollution or environmental degradation shall meet the cost of remedying such pollution or environmental degradation and any resultant adverse health effects, as well as the cost of preventing, controlling or minimising further pollution, environmental damage or adverse health effects.

##### **Criteria AQ.4**

- According to Section 9 (2) of S.I 6 of 2007 any operator who discharges any effluents or other discharges into the environment shall apply annually to the Agency for a licence. Inspectors from the Agency shall monitor compliance with the terms of any licences issued.

### **Criteria AQ.5**

- According to Sections 62, 67 and 102 of the Act, EMA shall maintain a register of all licences issued and the register shall be a public document and may be inspected at any reasonable hour at any premises of the Agency by any person on payment of the prescribed fee.

### **Criteria AQ.6**

- According to the authorised establishment, the Environment Management Agency, is supposed to have 447 staff members directly involved in environmental management issues.

### **1.5.4 Sampling**

During my audit I selected to visit Manicaland, Mashonaland Central and Matabeleland North provinces because there was a high concentration of mining activities and reported cases of non-compliance in these areas. I visited 27 mines that extract different kinds of minerals to assess the effects of mining operations on the environment. The number of mines in the country could not be ascertained at the time of audit so the selection was made based on those that were recorded in the EIA register and also blitz operation reports.

### **1.5.5 Methodology**

I conducted the audit in accordance with International Standards of Supreme Audit Institutions (ISSAI's). These standards require that a performance audit should be planned in a manner which ensures that an audit of high quality is carried out in an economic, efficient and effective way and in a timely manner. In collecting data, I reviewed documents, carried out interviews and inspected mines to obtain evidence on environmental monitoring in mining operations.

#### **1.5.5.1 Documentary Review**

I reviewed the following documents to gather information on the functions, procedures, policies and performance of the Environmental Management Agency.

- Environmental Management Act [*Chapter 20:27*].
- Annual Work plan 2009-2012.
- Statutory Instrument 6 of 2007 Effluent and solid waste disposal.
- Statutory Instrument 7 of 2007 E.I.A and ecosystems protection.
- Statutory Instrument 10 of 2007 Hazardous waste management.
- Statutory Instrument 12 of 2007 Hazardous substances, pesticides and other toxic substances.
- Statutory Instrument 72 of 2009 Atmospheric pollution control.
- EMA annual reports 2009-2010.
- National Environmental Policy and Strategies 2009.

- Mines and Minerals Act [Chapter 21:05].
- EMA Audited Financial Statements 2009-2010.
- 20 Environmental Impact Assessment reports.
- Environmental Impact Assessment Policy.
- Quarterly Environmental Management Plans 2009-2012, 6 EIA certificates, Disposal licenses (ZIMPLATS 2009-2012).
- Staff establishment report (2009-2012).
- Environmental Audits reports, EIA certificates and Renewal Register, Disposal and Emission licenses Registers, Prosecution Registers (Manicaland, Mashonaland Central and Matabeleland North).

### 1.5.5.2 Interviews

I also carried out interviews during the audit to assess how EMA monitors environmental management issues as well as to corroborate information obtained from documentary reviews. Refer to **Table 2** below.

**Table 2: Interviews conducted**

Designation/Post	Work station
Director Environmental Protection	Head Office
Director Environmental Management Systems	Head Office
Acting Finance Manager	Head Office
Human Resources Manager	Head Office
Principal Officer EIA	Head Office
Environmental Officer-Environmental Quality	Mashonaland West
Environmental Officer (EIA and Ecosystems)	Mash West, Mash Central, Manicaland and Mat North
3 Provincial Manager	Mash Central, Manicaland and Mat North
Safety Health Environmental Quality Officer	ZIMPLATS Ngezi Mine, Mazowe Mine Redwing Mine,
Director and Production Manager	DTZ-Alluvial Gold
General Worker	Bunu Mine
Security Guard	Slashwood Milling
Mine Director	Grant Manica Mine
Assistant Manager	Fascom Milling
Assistant Human Resources Supervisor	Anjin Investments
Mine Managers	Canterberry Mill, Dercos Mine and Mill, Dakota Mine, Makomo Resources, Mopafa 9 Mine, IMP 2 Mine, Quest 1 Mine, Diamond Mine Corporation, Turk

	Mine, Shamva Mine, Freda Rebecca Mine
Skills Training Officer	Iron Duke Mine
General Worker	Sox Milling Centre

### 1.5.5.3 Inspections

I visited mines mentioned below to check on effects of inadequate monitoring to corroborate documentary evidence.

- Mashonaland West –ZIMPLATS Ngezi Mine.
- Mashonaland Central- 8 mines and 3 mills (Mazowe Mine, Shamva Mine, Chigwada Mine, Roof Mine and Mill, Canterbury Mill, Dericos Mine and Mill, Iron Duke mine, Dakota Mine, Glendale Alluvial Gold Mine).
- Manicaland – 7 mines and 2 mills (Redwing Mine, DTZ (Alluvial Gold) Mine, Bunu Mine, Slashwood Milling, Grant Manica mine, Fascom Milling, Diamond Mining Corporation (Puredium), Anjin Investments and Sino-Zim Diamond mine).
- Matabeleland North- 5 mines and 1 mill (Makomo Resources, Turk Mine, Mopafa 9 Mine, Sox Milling Centre, IMP 2 Mine, Quest 1 Mine).

## **CHAPTER 2**

### **2. SYSTEMS DESCRIPTION**

#### **2.1 Functions and Roles of key Stakeholders**

##### **2.1.1 Ministry of Environment, Water and Climate**

The Ministry of Environment, Water and Climate formerly Ministry of Environment and Natural Resources Management has overall responsibility for the environment. According to Section 5 of the Environmental Management Act [*Chapter 20:27*], the functions of The Minister of Environment and Natural Resources Management include the following:

- To regulate the management of the environment and to promote, co-ordinate and monitor the protection of the environment and the control of pollution;
- To monitor the environment and trends in the utilization of natural resources and the impact of such utilization on the environment or any segment thereof;
- To co-ordinate the promotion of public awareness and education on environmental management;
- To impose penalties in terms of the Environmental Management Act [*Chapter 20:27*] on any persons who cause harm to the environment;
- To ensure that persons or institutions that are responsible for causing environmental harm will meet the cost of remedying that harm; and
- To formulate and cause to be implemented policies for environmental management and to recommend to the Government, the international and regional conventions on environment that Zimbabwe should become a party to and to secure the incorporation of such conventions into domestic law.

##### **2.1.2. Environmental Management Board**

According to Section 12 of the Act, the Environmental Management Board is composed of not less than nine and not more than fifteen members from the areas of environmental planning and management, environmental economics, ecology, pollution, waste management, soil science, hazardous substances, water and sanitation. One of the members shall be a legal practitioner registered in terms of legal practitioners Act and one shall be the Secretary for the Ministry responsible for the environment. The Board's main function is to control and manage the operations of the agency.

##### **2.1.3. Environmental Management Agency**

According to section 10 of the Environmental Management Act [*Chapter 20:27*], the Agency is responsible for:

- The formulation of quality standards on air, water, soil, noise, vibration, radiation and waste management;
- Assisting and participating in any matters pertaining to the management of the environment such as:

- Developing guidelines for National Plans, environmental management plans (EMPs) and local environmental action plans (LEAPs);
- Regulating and monitoring the collection, disposal, treatment and recycling of waste;
- Monitoring and regulating the discharge or emission of pollutants or hazardous substances into the environment;
- Keeping records in the forms of registers for all licences and permits issued under the law;
- Monitoring and regulating the control of invasive alien species
- Regulating, monitoring, reviewing and approving environmental impact assessments;
- Regulating and monitoring the management and utilisation of ecologically fragile areas

#### **2.1.4 Ministry of Mines and Mining Development**

The functions of the Ministry of Mines and Mining Development are to:

- Monitor and evaluate the implementation of mining development policies
- Administer and review mining and explosives laws.
- Promote beneficiation of mineral resources.
- Promote and develop small-scale mining.

#### **2.1.5 Mining Companies**

Mining companies are required to:

- Acquire EIAs so as to identify, prevent, mitigate and offset adverse on-site and off-site environmental and social impacts of developments.
- Develop, implement and sustain environmental management plans, including provisions for periodic review and revision.
- Develop more effective processes for identifying, assessing and mitigating adverse environmental impacts through the review of environmental impact assessments and the results of monitoring and assessment.
- Develop and set aside the resources for implementing mine closure plans aimed at rehabilitating the mine site and surrounding affected areas to the extent possible so as to reduce the long term environmental effects.

### **2.2 Process Description on monitoring of mining operations by EMA.**

Mining is a prescribed activity according to Section 2 and 97 of the Environmental Management Act [*Chapter 20:27*] which means it requires the miner to prepare an Environmental Impact Assessment report to be approved by EMA. The Environmental Impact Assessment report is used to identify and evaluate the environmental impacts of mining operations when carrying out bi-annual environmental audits.

The processes and systems involved in the management of environmental issues are embedded in the National Environmental Policy and Strategies 2009, the

Environmental Management Act [*Chapter 20:27*], Statutory Instrument 7 of 2007 (Environmental Impact Assessment and Ecosystems Protection Regulations) and the Environmental Impact Assessment Guidelines.

The emphasis on the EIA process is a result of the need to ensure sustainable utilisation of natural resources. The Environmental Impact Assessment (EIA) is a systematic process to identify, predict and evaluate the environmental effects of proposed projects in order to aid decision making regarding the significant environmental consequences of projects, developments and programmes. The EIA helps with the identification of all the environmental, social and economic impacts of a proposed development before a decision is taken on whether or not to proceed. Particular attention is given in EIA practice to preventing, mitigating and offsetting the significant adverse effects of proposed undertakings. The processes and systems include

- Submission of a prospectus by the project developer.
- Preparation of EIA report by the developer.
- Review of EIA report and award of EIA certificate.
- Bi-annual environmental Audit.

#### **2.2.1 Submission of a prospectus by the project developer**

According to the Environmental Impact Assessment General Guideline, before carrying out the EIA for a prescribed activity, the project developer must submit a prospectus to EMA containing information regarding the EIA and the project. The prospectus should contain the following information:

- a description of the proposed project;
- the current status of the project whether it is at the feasibility, planning, design or implementation stage; and
- a description of the known or predicted environmental impacts.

The prospectus should be reviewed by EMA within 20 days of submission to the Agency. Upon approval the developer must appoint an independent expert in environmental assessment to prepare the EIA Report.

#### **2.2.2 Preparation of EIA Report by the developer**

The developer is required to comply with any conditions that EMA may issue for the development of the EIA report. The Environmental Impact Assessment General Guideline, requires that EIA reports must contain the following information:

- a detailed description of the proposed project and the activities which will be undertaken during its implementation;
- reasons for the selection of the proposed site of the project;
- a detailed description of the direct, indirect, cumulative short- and long-term impacts the project will have on the various sections of the environment;

- specification of the measures proposed for eliminating, reducing or mitigating the anticipated adverse effects of the project;
- identification and description of methods for monitoring and managing the adverse environmental effects;
- an indication of whether the environment of any other country is likely to be affected by the project and the measures that will be taken to minimise any damage to that environment;
- how the developer plans to integrate biological diversity into the project (where applicable); and
- a concise description of the methodology used by the developer when compiling the EIA report.

### **2.2.3 Review of EIA report and award of EIA certificate**

According to the Environmental Impact Assessment General Guideline, EMA will review the EIA Report or, if the Agency does not have adequate expertise in a particular area they may ask other Government departments to review the report. For example, the Forestry Commission. On reviewing the report the Agency can:

- approve the project to which the EIA report relates;
- require the developer to conduct a further EIA for part or the whole project;
- request the developer to supply additional information or complete other tasks as EMA considers necessary.

The EIA review should be completed within 60 days. If this deadline is not met, then it can be assumed that the EIA approval has been granted and EMA must issue a certificate to the project developer. If the project is approved then EMA will issue the developer a certificate which:

- identifies the project;
- contains the name and address of the developer, or if the developer is a company the registered office of the company;
- states the date of issue of the certificate and the date of expiry of the certificate; sets out any conditions imposed by EMA and
- sets out any other matters deemed necessary by the Agency.

The EIA General Guideline provides that once an EIA certificate has been issued, the developer may then approach the Ministry of Mines and Mining development for authority to acquire mineral rights. The initial EIA certificate is valid for two years from the date of issue. Six months prior to the expiry of the certificate, the developer must submit a new application for an EIA certificate together with an updated EIA document. The EIA certificate is supposed to be renewed every year and EMA is required to maintain an EIA register.

#### **2.2.4 Biannual Environmental Audit**

According to Section 13 (1) of Statutory Instrument 7 of 2007, EMA must carry out bi-annual environmental audits to ensure that all projects being implemented are in compliance with the Act and any conditions set out by the Agency on the EIA certificate. The audits focus on the implementation of conditions set out in the environmental management plan that is contained in the EIA report. EMA is required to keep records of bi-annual environmental audits. Environmental audits examine whether any environmental problems exist as a result of a mining operation as well as the measures that are required to reduce or eliminate them.

During an environmental audit of a mine, EMA inspects the operator's facilities and processes to determine compliance with the EIA regulations on environmental management.

Areas of focus in an environmental audit include among others,

- Infrastructure in place at the project site and its compliance with the conditions set out in the EIA report.
- Any additions to the infrastructure and whether the miner had informed EMA through submission of an addendum to the EIA report.
- Availability of a current and comprehensive Environmental Management Plan (EMP).
- Levels of adherence with the Environmental Management Plan. EMA classify adherence to the EMP on 3 levels, which are; holistic, partial adherence and no adherence.
- Identification of any waste pollution generating activities at the project site. In this evaluation, the Agency identifies whether there are any hazardous substances or wastes as well as dust or air emissions.

#### **2.2.5 Environmental Offences**

After making the above assessments, if the Inspector identifies any non-compliance with regulations or the EMP, the inspector makes an order in writing to the mine operator requiring that they take such measures as are specified in the order for the prevention of harm to the environment and for the correction of the effects of the non-compliance. In addition to the issuing of an order, the inspector may impose a fine on the mine operator. According to Section 17(1)(a)(b) of Statutory Instrument 12 of 2007, any person who causes a hazard to the health of any human being or any animals, flora and fauna by failing to exercise care in the use or disposal of any hazardous substance shall be guilty of an offence and liable to a fine not exceeding level fourteen, or to imprisonment for a period not exceeding one year or to both such fine and such imprisonment. Level of fines chargeable ranges from Level 1 to Level 14. Level 1 is the minimum charge which is US\$5.00 and Level 14 is the maximum currently fixed at US\$5,000.00. In the event that the offender fails to pay the fine within the stipulated period he/she, is required to pay a default penalty as set by the agency and after the

lapse of the deadline for the payment of the default, the offender will be taken to court. The level of the fine chargeable at a site is at the discretion of EMA Inspector who considers such factors as the severity of the non-compliance and the impacts identified on site. If the offender is aggrieved by any action, decision or order of an inspector he/she may appeal against it to the Director-General. The appeal shall be made in the form and manner prescribed and shall be lodged with the Director-General within thirty days after the appellant was notified of the action, decision or order appealed against.

#### **2.2.6 Payment for discharge licences**

A developer is required to submit at the end of each quarter a report with details of their emissions and discharges. EMA would then determine the category the developer falls, the type of licence they are required to get and the cost. The developer is then required to acquire the specified licences by making a payment to EMA head office, provincial and district offices. Discharge licences are categorised into green, amber and red and attracting a fee of \$340, \$490 and \$640 respectively. The category a developer falls into is determined by the extent of their discharge. According to guide lines developed by EMA on licence processing, a licence is expected to be processed within a period of 1month.

#### **2.2.7 Blitz Operations**

These are inspections carried out by EMA to check on operators who are not complying with environmental regulations. The provincial managers compile reports of non-compliance in their respective provinces and they send their request for a blitz operation to be carried out to head office including the budgets, human resources, equipment and vehicles required. Blitz operations are not always pre-planned as these can be conducted following reports of environmental offences by the public. Blitz operations also do not usually target a certain developer or activity as EMA officials would just go around inspecting and penalising environmental offenders without actually carrying out a full audit.

#### **2.2.8 Record Keeping**

According to Sections 62, 67 and 102 of the Environmental Management Act, EMA shall maintain a register of all licences issued and the register shall be a public document and may be inspected at any reasonable hour at any premises of the Agency by any person on payment of the prescribed fee.

### **2.2.9 Recruitment**

The Human Resources Department at head office act as a support function to the operational departments providing recruitment and performance management services. EMA has an authorised staff establishment of 476 of which 447 are directly involved in environmental management. When recruiting staff, the human resources department uses job description and specifications submitted by the operational department. EMA runs its own payroll system.

## CHAPTER 3

### 3. FINDINGS

This chapter details my findings relating to adequacy of environmental monitoring of mining operations by the Environmental Management Agency.

#### 3.1 Inadequate Bi-annual Environmental Audits

According to Section 13(1) of Statutory Instrument 7 of 2007, EMA shall carry out bi-annual environmental audits to ensure that all projects being implemented are in compliance with regulations. The audits focus on the implementation of conditions set out in the environmental management plan that is contained in the EIA report.

During a review of EMA audit inspection records, I observed that EMA was not adequately carrying out bi-annual audits to check compliance by miners with EIA regulations. I reviewed environmental audit reports for head office, Manicaland, Mashonaland Central and Matabeleland North provinces. From a total of 1 468 mining projects granted EIA certification during 2009 to September 2012, at least 2 936 bi-annual audits were supposed to be carried out. However, the Agency only conducted 372 audits giving a variance 2 564, **refer to table 3**. Therefore only 13% of the required bi-annual audits were conducted.

**Table 3: Schedule of bi-annual audits performed in Manicaland, Mashonaland Central and Matabeleland North provinces.**

Year	No of EIA certified projects	No of statutory audits required	No of audits conducted	Variance	%age conducted audits
2009	289	578	22	556	4%
2010	344	688	21	667	3%
2011	353	706	99	607	14%
2012	482	964	230	734	24%
<b>TOTAL</b>	<b>1 468</b>	<b>2 936</b>	<b>372</b>	<b>2 564</b>	<b>13%</b>

*Source: EIA registers and 2009 – 2012 annual reports.*

I noted that there was no prioritisation by EMA for the conducting of bi-annual audits. For instance no mention was made in the 2012 annual work-plan for the bi-annual audits to be conducted. During the year 2009, 2010 and 2011, the agency in their annual work-plans planned to conduct audits of 15%, 100% and 100% of EIA certified projects but only 4%, 3% and 14% of the required audits were conducted. Planning to conduct audits in all EIA certified projects is evidence of unrealistic planning as EMA did not take into cognisance the available resources. During interviews; provincial officers cited shortage of resources for failure to conduct the required audits.

I also noted that EMA concentrated more on blitz operations. Blitz operations are conducted for all projects that EMA officials comes across and not specifically targeting EIA certified projects for the purposes of evaluating conformity with requirements specified in the environmental management plan. During my visit to Matabeleland North I noted that 18 of the 40 audits that were conducted in Bubi district during the 3<sup>rd</sup> quarter from July 20 to 22, 2011 were blitz audits. Also, 2 of the 9 audits that were conducted during the 1<sup>st</sup> quarter of 2012, on March 26 – 30 were blitz audits.

If bi-annual environmental audits are not conducted on each mine, protective measures prescribed in the EIA document may not be implemented by the miners resulting in threat or damage to the environment.

I also noted during my inspections of mining operations in Mashonaland Central Province, that Glendale Alluvial gold mine was ordered to fence their claim on October 31, 2012 but the miner did not comply with the order. Fencing of areas under mining operations is an EIA requirement meant to keep off both animals and people from falling into pits during mining activities.

### **Conclusion**

EMA is not adequately performing environmental audits. This is risky in that miners will operate without complying with conditions set out in the EIA report thereby causing health hazards to human beings or flora and fauna by failing to exercise care in the use or disposal of any hazardous substance.

**The Environmental Management Agency acknowledged the observation and highlighted that the year 2009 was characterised by understaffing. This contributed to the low number of biannual audits in 2009. However, the Agency indicated that they came up with the blitz strategy as a way of pooling together its resources in 2010 after realising that there had been some shortcomings in prior years. This then resulted in a total of 1770 audit inspections being carried out.**

### **3.2 Failure to control miners operating without EIA certificates.**

According to Section 97 of the Environmental Management Act [Chapter 20:27], a prescribed project should have an EIA certificate. The certificate remains valid only when conditions imposed by the Director-General in regard to the issue of the certificate are complied with. EMA is empowered by the Act to penalise any person who knowingly implements a project without a valid EIA certificate. According to Section 26 (1) of S.I 7 of 2007, the agency may impose a spot fine on the offender which ranges from level 1 to 14 (currently set between \$5 and \$5 000) or to imprisonment for a period not exceeding five years or to both such fine and such imprisonment.

From a review of blitz operation reports for eight provinces for the years 2010 to 2012, I established that a total of 986 mines were found operating without Environmental Impact Assessment Certificates. **Refer to Table 4 below for details.** No blitz operations were conducted during 2009.

**Table 4: Blitz operation reports on miners operating without EIA certificates for eight provinces from 2010-2012.**

<b>Province</b>	<b>Miners operating without EIA certificates 2010</b>	<b>Miners operating without EIA certificates 2011</b>	<b>Miners operating without EIA certificates 2012</b>	<b>Total</b>
Mashonaland Central	65	-	119	<b>184</b>
Masvingo	-	39	34	<b>73</b>
Matebeleland North	24	-	19	<b>43</b>
Matebeleland South	-	122	116	<b>238</b>
Manicaland	-	15	13	<b>28</b>
Mashonaland West	93	18	37	<b>148</b>
Mashonaland East	-	58	-	<b>58</b>
Midlands	103	55	69	<b>227</b>
<b>TOTAL</b>	<b>285</b>	<b>307</b>	<b>394</b>	<b>986</b>

*Source: Blitz operations 2010-2012*

Key: - (means no blitz operation had been carried out)

I established from documentary review of EMA inspection reports that implementation of mining activities without EIA certification was partly as a result of lack of co-ordination of operations between EMA and the Ministry of Mines and Mining Development which is the mines and minerals licensing authority. Miners were being issued mining rights without EIA certificates. The 986 miners found operating without EIA certificates had mining rights obtained from Ministry of Mines and Mining Development. During my audit I also noted that there was no evidence of meetings between EMA and Ministry of Mines and Mining Development to discuss issues of compliance with EIA regulations. During interviews, Ministry of Mines and Mining Development officials confirmed that there was no coordination with EMA regarding EIA certification of miners.

Mining without EIA certification has the risk of harmful mining methods being used. For instance, Dark Horse Mine (Kwekwe) had open pits as a result of environmentally harmful mining methods (**Refer to picture 1 below**).



*Picture 1=Source-EMA Midlands blitz report 2010.*

Failure to rehabilitate mined areas resulted in land degradation, siltation of surrounding rivers and deforestation in the area. In Manicaland Province, I observed that there was land degradation in small scale mines. The opening up of forest land for mining activities was further contributing to the loss of biodiversity. It was now difficult to find pristine woodlands especially in Mutare Odzi area as a result of small scale mining activities taking place in this area. Also the blitz report of 2012 for Mashonaland Central indicated that there was land degradation by small scale miners operating without EIA in areas like Bhuka, Sadis farm, Nyapfere, and Rosa in Chiweshe communal areas where mining activities were being carried out in residential areas.

During my inspection and interviews with the Mine Manager at Dakota Chrome mine in Mashonaland Central, I established that the mine had been operating without an EIA certificate since 2008 and had left huge tracks of land without being rehabilitated.

## **Conclusion**

There was no coordination between EMA and Ministry of Mines and Mining Development to ensure that miners obtain EIA certification before commencing operations. This was evidenced by blitz operations reports for eight provinces which revealed that a total of 986 mines were operating without Environmental Impact Assessment Certificates but had mining licences.

**The Agency noted the observation as it is consistent with the provisions of Section 97(5) of the Environmental Management Act [Chapter 20:27]. The Agency also acknowledged that inter stakeholder coordination was low and further indicated that they communicated with the Ministry of Mines in 2011 to this effect. They**

further highlighted the Ministry of Environment, Water and Climate, developed a draft document that compels all stakeholders to consult and liaise with each other before any new project is implemented to avoid this anomaly. It was hoped that when the draft document comes into operation, coordination would be stronger and effective in order to address the observation.

### 3.3 Inadequate monitoring of EIA certificates renewal

According to Section 101 of the Environmental Management Act [Chapter 20:27], the validity of EIA certificates issued is supposed to be two years. EMA may extend the validity of a certificate for not more than one year for a project that has been commenced within the stipulated period but not yet completed. Renewal should be done within 6 months before expiry.

From review of the renewal registers at EMA head office, I sampled 75 out of 576 mines issued with EIA certificates during 2007, 2008 and 2009 which were due for renewal in 2009, 2010 and 2011 respectively. Of the sampled 75 mining projects, only one project, Rose of Gold in Midlands Province renewed its EIA certificate on August 3, 2012, 18 were not operational and 2 had their status not known as at date of audit. **Refer to Annexure C.**

From documentary analysis of the EIA register for Mashonaland Central province for the period 2009 - 2012, 356 projects were due for renewal and only 47 (13%) were renewed leaving a variance of 309 (87%). Refer to **Table 5** below for details of EIA certificate renewal for Mashonaland Central province.

**Table 5. EIA certificate renewals for the periods 2009 to 2012- Mashonaland Central**

Year	No. of EIA certificates due for renewal	No. of renewed certificates	No. of EIA certificates not renewed	% of renewal	% Variance
2009	254	33	221	13	87%
2010	74	4	70	5	95%
2011	22	9	13	40	60%
2012	6	1	5	17	83%
<b>Total</b>	<b>356</b>	<b>47</b>	<b>309</b>	<b>13%</b>	<b>87%</b>

Source: EIA Register 2009-2012.

In cases of those who had renewed, it had taken over three years after expiry of the EIA for the renewal to be done instead of renewing within six months before expiry. Out of a sample of 34 miners only 5 (15%) renewed their EIA certificates within the stipulated time and 29 (85%) renewed after expiry of the EIA certificate. Refer to **Annexure D** for details of non- renewal of EIA.

EMA was not sending reminders to miners for the renewal of the EIA certificates within six months before their expiry. The Agency was also not making follow ups on expired EIA certificates. This was evidenced by non-availability of any correspondences made in quest of EIA certificates renewals.

If EIA renewals are not done, it is not possible for EMA to ensure that changes in the EMP are incorporated and to monitor new developments on site. Failure by EMA to ensure that miners renew expired EIA certificates resulted in miners changing scope of mining operations without valid EIA certificate. For instance, in Manicaland Province, Redwing mine whose EIA certificate expired on June 12, 2009 had temporarily stopped shaft mining due to dewatering and was instead extracting and processing gold remnants from old dump sites left by the Germans long back.

<b>Conclusion</b>	The system in place is not adequate to ensure EIA certificates are renewed in time.
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**The Agency acknowledged the observation and highlighted that Section 101 (1)(2) of the Environmental Management Act [Chapter 20:27] which states that a certificate issued by the Director-General in terms of section 100 shall be valid for two years from the date of issue, provided that for good cause shown, the Director-General may extend the validity of a certificate for not more than one year for a project that has been commenced within the stipulated period but not yet completed. The Agency further stated that it is proposing an amendment that mandates appropriate EIA renewal for continuous projects such as mining. In order to improve on follow-ups, EMA stated that it has developed an electronic database with features that automatically flags out projects due for renewal.**

### **3.4 Failure to monitor discharge and emission in mines**

According to Section 9(2) of S.I 6 of 2007 on Effluent and Solid Waste Disposal, any operator who discharges any effluents or other discharges into the environment shall annually apply to the Agency for a licence. Inspectors from the Agency shall monitor compliance with the terms of any licence issued. According to Statutory Instrument 5 of 2011 on Hazardous substances, pesticides and other toxic substances, discharge licences are categorised into green, amber and red and attract a fee of \$340, \$490 and \$640 respectively.

Since the beginning of the year 2011 all licences were being processed at EMA Head Office and signed by the Director General. Prior to 2011, the licences were being processed at EMA provincial offices.

During documentary review of license registers for 2011 and 2012 (licences registers for 2009 and 2010 were not available) at EMA head office, I noted that EMA was not following up on renewal of discharge and emission licences. Gold milling process involves use of chemicals and operators are supposed to have effluent discharge licences. A sample of 16 gold millers from EIA register at head office revealed that

they had not been issued with discharge licences during the period under review and potential revenue of at least \$17 000 could have been realised if the millers were issued with discharge licences of at least \$340 per miller per annum. Furthermore, I noted that there was no evidence of those operators being fined for operating without licenses. **Refer to Annexure E** for details.

Interviews with EMA officers revealed that processing of a discharge and emission licence is supposed to take at least 1 month to complete. There were delays by EMA in the processing of discharge and emission licences. During my visits in Mashonaland Central and Matabeleland provinces I noted that some operators had paid for the licences and their applications were sent to Head Office in Harare for processing as highlighted in the **Table 6** below but they were still awaiting receipt of the licences. I could not verify the date when forms were received for Shamva mine, Turk mine and Makomo Resources as the information was not availed at the time of audit.

**Table 6: Sample of mines with licence applications pending at Head Office in Harare.**

<b>Mining Company</b>	<b>Date Application forms Received by EMA provincial office</b>	<b>Date Paid</b>	<b>Date application sent to Head Office</b>	<b>Period of Delay</b>	<b>Amount Paid(\$)</b>
Freda Rebecca	6/1/12	16/3/12	17/4/12	1 month	15 632.30
Shamva Mine	-	07/02/12	Direct to H/O	-	13 030.18
Trojan Nickel	17/1/12	08/5/12	20/7/12	2 months 12 days	-
Wagner	17/2/12	17/2/12	20/2/12	3 days	672
Makomo resources	-	05/06/12	-	-	-
Turk mine	-	23/10/12	-	-	-

*Source: Mashonaland Central and Manicaland licence Registers 2012*

Key: (-) means the dates and amounts could not be established at the time of audit.

At the time of my audit, Freda Rebecca and Shamva mine, had receipts for effluent discharge licence payments but had not yet received their licences. EMA Officers in Manicaland, Mashonaland Central and Matabeleland North provinces alleged that delays in processing of licences were as a result of centralisation of the licence processing system at EMA Head Office in Harare.

A further analysis into the miners' allegations of delays in processing of licences by EMA, in which I sampled 20 mines, confirmed that the time taken to process a licence ranged between 1 month and 10 months. On average it was taking 4 months to process a licence. I also noted that provincial offices were delaying in sending licence

applications to head office. Of the 20 miners sampled, 8 (40%) application forms were sent to head office by the provincial officer after a period ranging between 1 month and 8 months. However on inquiry the provincial officers could not justify the delays in sending forms to head office. **Refer to Annexure F for details of delays.**

Operating without discharge licences by miners was also as a result of failure by EMA to make regular follow ups. Currently EMA relied on blitz inspections to identify those miners who did not have licences and miners were not obtaining and renewing their licences as they had realised that blitz inspections were quite irregular and did not cover all regions. EMA does not have a system in place to identify miners whose discharge licences would be due for renewal.

Mining without discharge licences results in unregulated environmental pollution of air, land and water given that a discharge and emission licence will specify how an operator will handle their discharge. A review of Manicaland blitz reports of 2011 revealed that Anjin Diamond Company in Marange was operating without a discharge licence and was discharging hazardous substances into the Odzi river resulting in death of animals and development of human skin diseases. The miner was fined and was directed to use a closed system to avoid discharge into the river.

### **Conclusion**

EMA does not have a system in place to ensure that miners operate with discharge and emission licences. As a result, miners are discharging effluent unregulated. This has far reaching effects if the discharge is toxic to fauna and flora and to surrounding communities.

**The Agency acknowledged the observation and stated that they have improved the system and the average turnaround period is now less than a month depending on the type of licence. The Agency pointed out that from late 2012 an overnight swift service is now being used to send applications from provinces to Head Office.**

### **3.5 Failure to implement adequate measures against environmental offenders.**

According to Section 4 (2)(g) of the Environmental Management Act [Chapter 20:27], any person who causes pollution or environmental degradation shall meet the cost of remedying such and any resultant adverse health effects, as well as the cost of preventing, controlling or minimising further pollution or environmental damage.

Review of documents in Manicaland Province revealed that there were offenders who had been penalised and paid for the same offence more than once for environmental pollution and were still operating. Interviews with EMA provincial officers and mine operators revealed that the cost of complying with environmental regulations for example setting up the required infrastructure was sometimes high which made it cheaper for mining operators to pollute and pay the fines than to comply with environmental regulations. **Table 7** below shows a record of operators who have been penalised for the same offence more than once and were still operating.

**Table 7: Mining operators fined more than once for the same offence.**

<b>Date</b>	<b>Name of mine</b>	<b>Amount paid(\$)</b>	<b>Offence</b>
1/2/2012	Anjin Investments	5000	Discharging effluent
17/2/12	Anjin Investments	5000	Discharging effluent
17/2/12	Anjin Investments	5000	Burning of waste
20/2/12	Anjin Investments	5000	Discharging effluent
20/2/12	Anjin Investments	5000	Burning of waste
12/6/2012	Diamond Mining Corporation	2000	Failure to comply with EIA conditions and disposal of domestic waste
12/6/2012	Diamond Mining Corporation	1000	Disposal of domestic waste
19/6/12	Marange Resources	5000	Polluting Odzi river
22/6/12	Marange Resources	5000	Polluting Odzi river

Source: Prosecution registers 2012.

EMA charged Anjin Investments several times in the same month because they were discharging effluent directly into the Odzi river which was being used by the surrounding communities for domestic purposes instead of using a closed system as stated in their EIA. There were reports of people developing skin disease as a result. During my visit to Mashonaland Central, I noted that Freda Rebecca a large scale mining firm was fined twice in 2010 and 2011 and paid \$1 000 and \$5 000 respectively for illegally discharging toxic effluent (cyanide) thereby polluting the environment. At the time of my audit, I noted that they still had not corrected the position by lining their slimes dam which they had been previously fined for.

Environmental offenders were finding it rather cheaper to pollute and degrade the environment because it seemed easier for them to “pollute and pay”. As I reviewed the registers I discovered that EMA was not adequately enforcing the penalties as required by the regulations. The only penalty being enforced on environmental offenders was that of a fine ranging from \$5 to \$5000. Of the reprimanded offenders, I noted that none had been ordered to meet the cost of remedying the environmental degradation except for Dtz- Ozgeo who was ordered to remedy after they had diverted the course of Mutare River but did not fully implement the order.

Enforcing compliance through the courts had also proved ineffective as environmental offences were not being given priority in comparison to other criminal cases. EMA issued statements to court for Chehumande Mining Syndicate, Rosary Mine, Alpes 27 Mine as well as Moneyquin 3 mine and the cases were yet to be decided, **refer to table 8 below.**

**Table 8: Mines with cases referred to the courts by EMA**

<b>Name of Mine</b>	<b>Date Statement was Issued to Court</b>	<b>Status at time of Audit 31/10/2012</b>
Alpes 27 Mine	29/07/2011	Not yet decided in court

Rosary Mine	17/09/2011	Not yet decided in court
Chehumambe Mining Syndicate	11/05/2011	Not yet decided in court
Moneyquin 3 Mine	Sept 2011	Not yet decided in court

*Source: EMA Court Statements.*

**Conclusion** Measures in place against environmental offenders are not adequate to deter them from employing harmful methods of operation. Miners are not being reprimanded in a way that takes into account the costs of remedying environmental degradation.

The Agency concurred with the audit observation and stated that the current penalty system is not deterrent and enforcing compliance through the courts is also non-deterrent. The Agency highlighted that it has been issuing orders in terms of Section 37(4) of the Environmental Management Act [Chapter 20:27] to ensure environmental remedy as noted during the audit. The Agency issued 22 orders in 2009, 159 orders in 2010, 239 orders in 2011 and 708 orders in 2012 to polluters for the protection of the environment. The Agency indicated that some of these orders were not complied with due the non-deterrent nature of the prosecution process. Those who did not comply were taken to courts but the cases took too long to be settled, and even when finally heard the offenders are given non-deterrent penalties. The Agency gave an example of Tas Mine case in Mazowe District which was taken to court, found guilty, given a wholly suspended sentence of twelve months but was allowed to go and continue operating illegally for a further four months. They further indicated that Environmental offences were not given equal priority with criminal offences. The Agency is proposing the establishment of environmental courts which will expedite the hearing and enhance quality of judgements of environmental offences. This will then enhance the effective enforcement of the “polluter pays principle”.

### **3.6 Poor maintenance of records**

According to Sections 62, 67 and 102 of the Environmental Management Act [Chapter 20:27], EMA shall maintain a register of all licences issued and the register shall be a public document and may be inspected at any reasonable hour at any premises of the Agency by any person on payment of the prescribed fee.

I noted that EMA was not properly maintaining the EIA register. At EMA Head Office I was availed with a register containing 576 EIA certified projects. However after carrying out documentary review in Mashonaland Central, Manicaland and Matabeleland North Provinces I discovered that there were 1468 certified projects in the 3 provinces alone.

During my visit to Manicaland province, I requested registers for licences issued and I was only availed with a register covering the period 2011 and 2012. Reviews of the availed registers (2011 and 2012) revealed that the registers were not being updated. According to the registers only six mining operators were issued with licences against a total of 46 mining operators in the province who had valid EIA certificates. Licence application forms and receipt books revealed that some mining operators had paid for their licences but their licence details were not recorded in the registers. A summary of those not recorded in the registers but paid for the licence is in **Table 9**.

**Table 9. Record of licenses paid for but not recorded in the register.**

<b>Name of Operator</b>	<b>Category of licence</b>	<b>Date Applied</b>	<b>Receipt Number</b>
Anjin Investments	Slimes Effluent	10/08/2011	79960
Shava Mine	Solid Waste	12/08/2011	79451
Redwing	Solid Waste	24/08/2011	79209
Redwing	Solid Waste	24/08/2011	79207
Redwing	Hazardous Waste	24/08/2011	79213
Redwing	Hazardous Waste- Oils	24/08/2011	79212
Redwing	Cyanide and Fuel storage	27/10/2011	79209
Diamond Mining Corporation	Solid Waste	21/03/2012	129137

*Source: licence Application Forms and Receipts Books*

I visited Fiscom milling company and Dtz-Ozgeo, Anjin Investments and Redwing mining companies who had proof of payment but were not recorded in the registers. Dtz-Ozgeo paid and was issued licences for hazardous substances and oil separator for the period 2012 but these were not recorded in the register.

Lack of proper record keeping has a negative effect on planning and decision making. It is difficult to plan for bi-annual audits if all the projects are not captured.

<b>Conclusion</b>	Records are not being properly maintained, hence it was difficult to determine whether licences had been renewed or not. Absence of updated registers denies the public the privilege to inspect the registers.
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**EMA acknowledged the observation and highlighted that in line with provisions of Section 100 of the EMA Act [Chapter 20:27], the office of the Director-General processes all certificates and licences issued by the Agency including EIA certificates. The licensing process is centralised at Head Office and captures all certificates processed countrywide. The Director-General keeps the register of licences in terms of the Environmental Management Act [Chapter 20:27] Section**

**102. They further highlighted that other registers kept at provincial offices are for administrative purposes only and they include prospectus, environmental management plans and EIAs. This resulted in the provincial record having higher figures than the national as observed by audit. The Agency indicated that a database software has also been developed which links four centres to Head office and plans are in progress to link the remaining centres.**

### **3.7 Inadequate Human Resources**

According to the staff establishment, the Environment Management Agency is supposed to have 447 personnel directly involved in environmental management.

Review of the staff register revealed that the institution had 275 (62%) officers who were directly involved in environmental management. This left a deficiency of 172 (38%) of the required staff. The vacant positions were mainly for important specialists needed in the monitoring of the environment who are environmental officers, technicians, planning officers and analysts. The analysis of staff establishment by province is indicated in **Table 10 below:**

**Table 10: Number of vacant positions by province**

<b>Province</b>	<b>Total authorised staff</b>	<b>Filled positions</b>	<b>Vacant positions</b>	<b>% of vacant positions</b>
Harare-Head Office	105	52	53	50%
Manicaland	46	34	12	26%
Mashonaland East	46	29	17	37%
Mashonaland West	40	26	14	35%
Mashonaland Central	43	27	16	37%
Masvingo	39	27	12	31%
Matebeleland North	42	27	15	36%
Matabeleland South	43	25	18	42%
Midlands	43	28	15	34%
<b>TOTAL</b>	<b>447</b>	<b>275</b>	<b>172</b>	<b>38%</b>

*Source: EMA staff establishment. (2009-2012)*

During interviews with provincial officers in Manicaland, Matabeleland North and Mashonaland Central provinces, they indicated that there was only one environmental officer in the EIA and Ecosystems Protection section for each province responsible for carrying out statutory audits, EIA certificates renewal and inspection of sites for new EIA submitted.

EMA management indicated that shortage of staff was caused by the government freeze on recruitment by government institutions.

The shortage of staff resulted in EMA only operating in 52 districts and not being visible in the other 9 districts around the country. This has affected EMA's response to eventualities and control of the physical environment in the 9 districts inaccessible to the Agency and areas with a higher concentration of mining activities.

Inadequate staff was also affecting monitoring schedules of the Agency. Manicaland, Matabeleland North and Mashonaland Central provinces had 1468 EIA certified projects and 2936 statutory audits were supposed to be done but only 372 were carried out. The vacancy rate for the three provinces were 26%, 36% and 37% respectively.

### **Conclusion**

EMA's mandate was adversely affected by shortage of staff. The current staff position makes it difficult for EMA to respond to eventualities, carry out statutory audits and access all districts around the country resulting in inadequate monitoring of activities affecting the environment.

**The Agency concurred with the audit observation that there is a deficiency of staff required to effectively monitor and protect the environment. They further went to highlight that like any other government department the Agency was affected by the government freeze on recruitment.**

## **CHAPTER 4**

### **4. RECOMMENDATIONS**

This chapter presents recommendations that are aimed at addressing challenges that are being experienced by EMA in environmental monitoring of mining operations. It is hoped that these recommendations will result in improved service delivery.

#### **4.1 Environmental Audits**

EMA should prioritise and set realistic plans and programmes to carry out bi-annual environmental audits to ensure that miners are complying with EIA regulations. Provincial offices should annually come up with balanced programmes on the numbers of blitz and EIA compliant audits to be conducted.

#### **4.2 Environmental Impact Assessment certification**

EMA must engage the Ministry of Mines and Mining Development who is the licensing body, to partner in informing and educating miners on the need to comply

with Environmental Impact Assessment requirements before implementing their prescribed projects. Coordination between EMA and Ministry of Mines and Mining Development should be improved to ensure that an approved EIA is available for every licence issued. EMA must also formulate plans or programmes to follow up on blitz operations to ensure that miners who were previously fined comply.

#### **4.3 Environmental Impact Assessment renewal**

EMA should formulate a sound EIA renewal system to ensure that environmental monitoring is efficiently and effectively carried out. EMA should also maintain updated registers for all projects with EIA certificates for easy monitoring of the renewal process.

#### **4.4 Discharge and Emission Licences**

EMA should ensure applications for discharge licences are submitted to head office for processing in time, to avoid delays in issuing of licences. EMA should also computerise the database so that operators who have outstanding licences as well as those who would have made payments at EMA head office are easily identified and determined. This would assist EMA to send reminders to those with expired licences and to process licences for those who would have paid directly to head office.

#### **4.5 Penalty System**

For effective monitoring and control of environmental pollution there is need for EMA to ensure that offenders meet the costs of remedying such pollution or environmental degradation and any resultant adverse health effects. The Act also provide that EMA can confiscate equipment used by the operator in order to enforce compliance.

EMA should consider implementing the international regulations on environmental pollution like The United Nations Environment Programme (UNEP) Multilateral Environmental Agreement Guideline. The Guideline provides that the Governments must impose appropriate and proportionate penalties for environmental law violations which would encourage compliance by raising the cost of non-compliance above that of compliance. For environmental crime, additional deterrent effect can be obtained through sanctions such as imprisonment, fines, confiscation of equipment and other materials, disbarment from practice or trade and confiscation of the proceeds of environmental crime. This will encourage operators to follow regulations as the penalty would be stiff.

EMA should engage the Ministry of Justice, Legal and Parliamentary Affairs to ensure environmental cases are heard in time. Establishment of environmental courts can be considered.

#### **4.6 Poor record management**

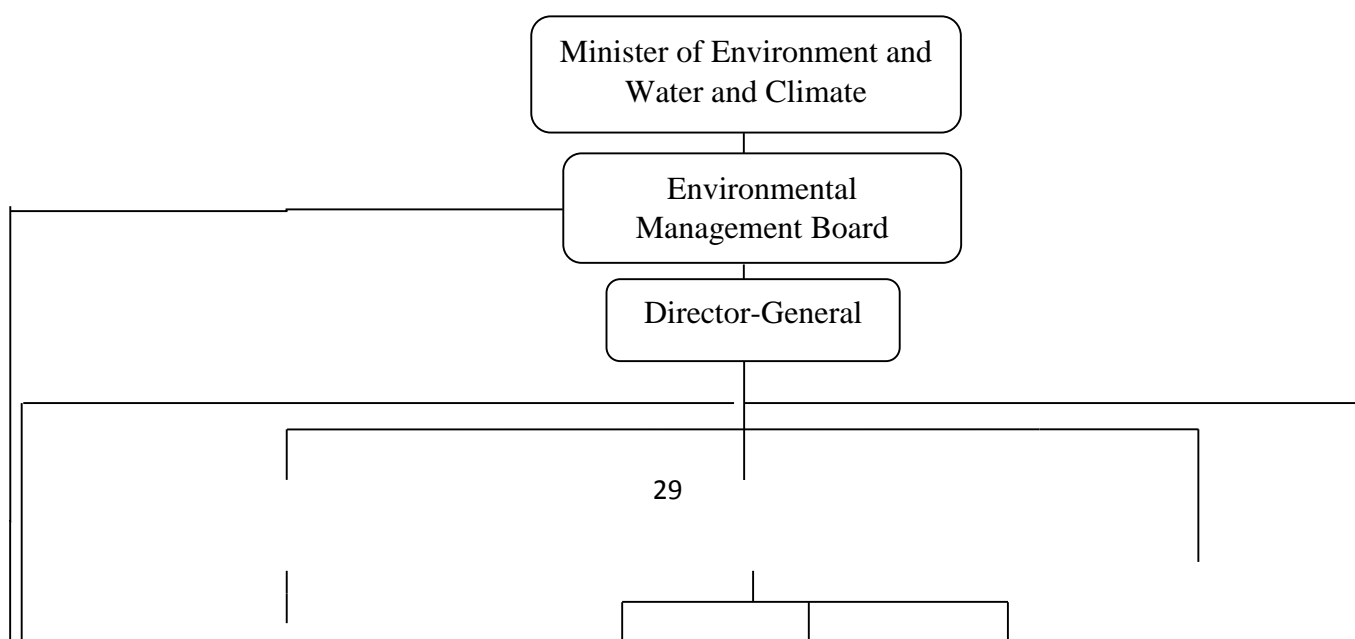
Registers serve as the data base for the mining activities from which operators who have not renewed their licences are identified. EMA should ensure that all licences issued are recorded in the registers and regularly checked by an independent person or senior officer to ensure the registers are updated and made available for public

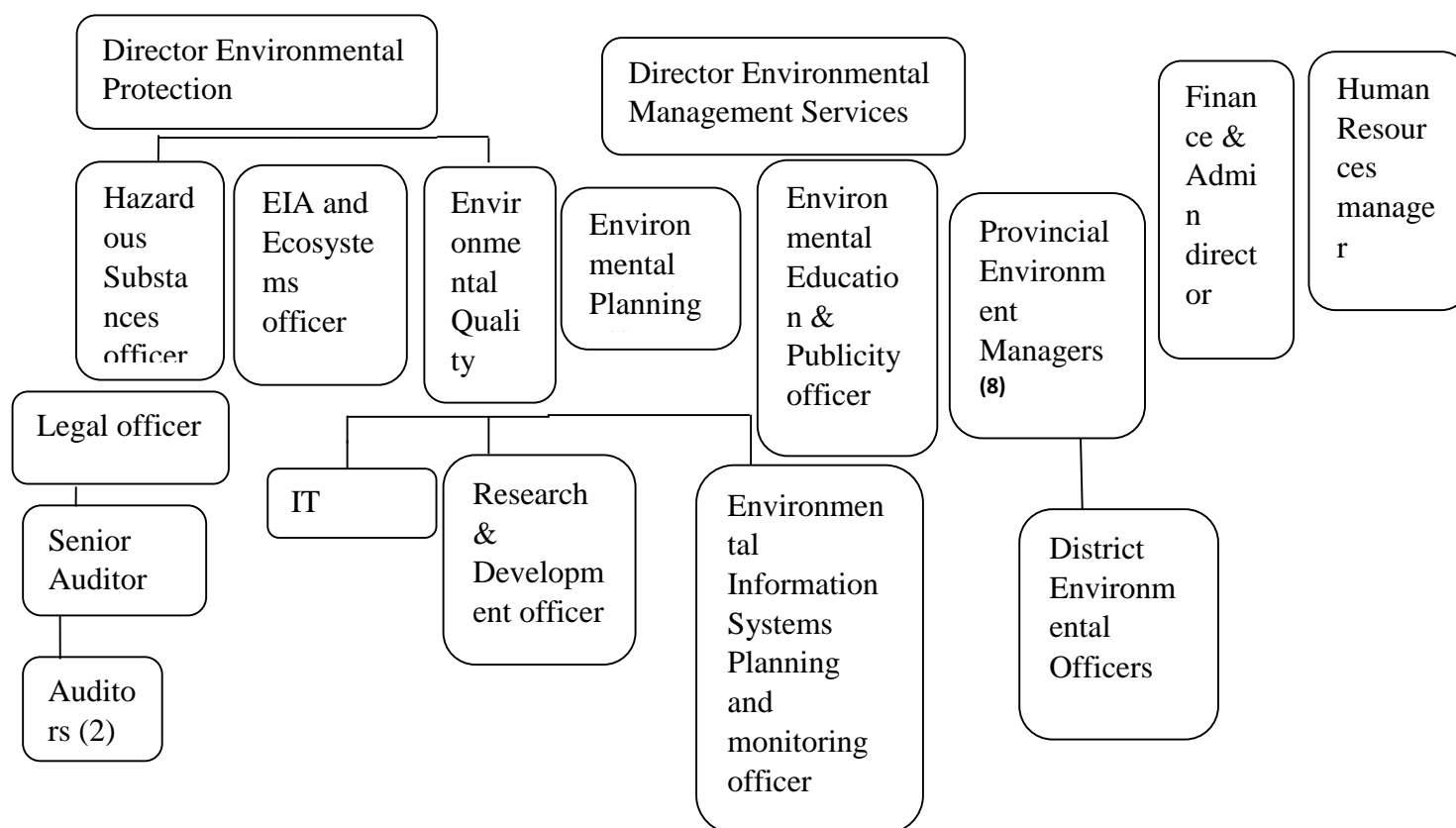
inspection. EMA should seriously consider computerizing its recording system to facilitate easy data management. This will assist with an automatic reminder whenever an operator's licence is due for renewal or payments for discharge licences are due, to facilitate follow ups.

#### 4.7 Shortage of human resources

EMA should engage the Civil Service Commission regularly for authority to fill in the vacant posts in order to improve operations. A job evaluation exercise should also be considered in order to establish the number of officers required for the agency to operate effectively.

## ANNEXURE A. ORGANOGRAM





## ANNEXURE B: OTHER INCOME

INCOME	2009 USD	2010 USD	2011 USD	2012 USD
Administration fees	352 668	577 260	664 142	833,400
Bank interest received	222	5 064	8 235	14 793
Insurance proceeds	-	-	-	1 470

<b>Interest from short term investments</b>	5 616	64 050	142 138	374 311
<b>Miscellaneous revenue</b>	8 669	76 492	670	249
<b>Non submission fees</b>	316 823	72 533	20 809	25 469
<b>Penalty fees</b>	278	948	131 165	82 154
<b>Penalty red class</b>	257 188	202 011	262 917	196 767
<b>Rentals</b>			5 050	27 500
<b>Spot fines</b>	97 999	383 765	38 542	161 363
<b>Tender document fees</b>	350	594	-	-
<b>Recovered debtors</b>	-	1 055 440	-	-
<b>Penalty fees general</b>	278	-	-	-
<b>Total</b>	<b>1 040 091</b>	<b>2 438 157</b>	<b>1 237 668</b>	<b>1 717 476</b>

Source: EMA financial statements 2009-11 and 2012 financial budget.

# ANNEXURE C: EIA RENEWAL STATUS FOR SAMPLED MINES

Year	Project No	Province	Project Name	Date of EIA issue	Status as at October 29, 2012
2007	1. 472	Mashonaland Central	Canterbury mining project	8/02/07	No renewal
	2. 477	Mashonaland Central	Munamato syndicate	10/09/07	Not operational
	3. 556	Mashonaland Central	Acadia 33,31 mine	16/03/07	No renewal
	4. 600	Mashonaland Central	Magobo mill	10/01/07	No renewal
	5. 1066	Mashonaland Central	Freedom 7&8 mining project	5/03/07	Not operational
	6. 1205	Mashonaland Central	Jumbo mining	5/03/07	No renewal
	7. 533	Mashonaland East	Mbumbu limestone	4/04/07	No renewal
	8. 1512	Mashonaland East	Tonmark mine	31/07/07	No renewal
	9. 3755	Mashonaland East	Makamu syndicate	19/11/07	Status not Known
	10. 1172	Matabeleland North	Sun yet sen mine	13/06/07	No renewal
	11. 3127	Matabeleland North	Coronation	2/08/07	Not operational
	12. 670	Matabeleland South	Princess Daisy syndicate	5/03/07	No renewal
	13. 716	Matabeleland South	Valentine	31/01/07	No renewal
	14. 3126	Matabeleland South	Sox gold mine	2/08/07	Status not Known
	15. 3100	Matabeleland South	Mphoenga 9&17	2/08/07	Not operational
	16. 610	Mashonaland West	Rockers mine & mill	13/06/07	No renewal
	17. 638	Mashonaland West	Take mine	19/01/07	No renewal
	18. 1768	Mashonaland West	African gold	3/10/07	No renewal
	19. 2003	Masvingo	Good 7 mine	27/08/07	No renewal
	20. 3821	Masvingo	Free gold state 2	10/09/07	Not operational

21.	803	Midlands	Acqua mine	25/01/07	No renewal
22.	1049	Midlands	Rose of gold	5/06/07	Renewed
23.	1956	Midlands	Hunters road mine	25/06/07	No renewal
24.	964	Manicaland	Redwing mine	16/02/07	No renewal
25.	3688	Manicaland	Penhalonga lead	19/11/07	No renewal
<b>2008</b> 1.	4183	Manicaland	Chihota mining	10/10/08	Not operational
2.	4040	Manicaland	Virginia 46	10/11/08	No renewal
3.	3794	Manicaland	Southampton 35	17/04/08	Not operational
4.	4232	Midlands	Asbesco 17	10/10/08	Status not Known
5.	4067	Midlands	Middleberg mines	10/11/08	Not operational
6.	3811	Midlands	Baryon 12 milling	27/05/08	Not operational
7.	2656	Midlands	Lulu 2	11/02/08	No renewal
8.	4028	Masvingo	Chinda mine	10/11/08	Not operational
9.	3978	Masvingo	Dakota	23/09/08	No renewal
10.	2665	Masvingo	Good 19	5/03/08	Not operational
11.	4081	Mashonaland West	Kadomamagnesite	10/10/08	No renewal
12.	1272	Mashonaland East	Laston 2	08/09/08	No renewal
13.	2980	Mashonaland East	Redwine A	20/05/08	No renewal
14.	2805	Mashonaland East	Miati mines	5/03/08	No renewal
15.	2751	Mashonaland East	Last chance	5/03/08	No renewal
16.	4220	Matabeleland South	Vein west mine	26/11/08	No renewal
17.	4026	Matabeleland South	Peak northwest	22/07/08	No renewal
18.	3846	Matabeleland South	Kent 53	2/09/08	Not operational
19.	3470	Matabeleland North	Happy Valley 75	08/03/08	Not operational
20.	2858	Matabeleland North	Grangerbrook 55	08/09/08	Not operational
21.	2544	Matabeleland North	Northdown	01/02/08	Not operational

22.	3073	Mashonaland East	Kelly granite	17/04/08	Not operational
23.	4097	Mashonaland Central	Loveless 21-30-81-86	24/03/08	Not operational
24.	4048	Mashonaland Central	Kath mining syndicate	08/03/08	Not operational
25.	4009	Mashonaland Central	JR. Mine & Mill	10/11/08	No renewal
<b>2009</b>	1. 4285	Mashonaland Central	Pen 75	17/02/09	No renewal
	2. 4286	Mashonaland Central	RMJ 50	17/02/09	No renewal
3.	2835	Mashonaland Central	Rosa	06/03/09	No renewal
4.	4311	Mashonaland Central	SAS Mine	18/06/09	No renewal
5.	4341	Mashonaland Central	Kimberlyte	18/06/09	No renewal
6.	4149	Mashonaland East	Borera 44	04/03/09	No renewal
7.	2907	Mashonaland East	Chifumbi North 2 & 3	17/02/09	No renewal
8.	4386	Matabeleland South	Claremont 37	20/07/09	No renewal
9.	4193	Matabeleland South	Bird SE Mine	25/03/09	No renewal
10.	781	Mashonaland West	B.H Moyo Mine Ext	27/05/09	No renewal
11.	4258	Mashonaland West	Jamelite 20-29	27/01/09	No renewal
12.	4269	Mashonaland West	Green Rose 43-47	13/02/09	No renewal
13.	4324	Mashonaland West	Vein Wyk	14/05/09	No renewal
14.	4290	Mashonaland West	Emerald 90	13/02/09	No renewal
15.	2794	Mashonaland West	Kupinda Mill & Mine	24/03/09	No renewal
16.	4357	Mashonaland West	Chisanga Mines	20/07/09	No renewal
17.	4330	Mashonaland West	King Shaft Mine	27/05/09	No renewal

18.	4263	Masvingo	Hujomu Mining Syndicate	13/02/09	No renewal
19.	92	Midlands	Fortknox Mining Mill Extension	18/06/09	No renewal
20.	1744	Midlands	Doon 5 Mine	27/05/09	No renewal
21.	4310	Midlands	King 12 Mine	26/03/09	No renewal
22.	4314	Midlands	Valley Echo Mine	14/05/09	No renewal
23.	4332	Midlands	Bunday Technical Mining	28/05/09	No renewal
24.	4362	Manicaland	Saviano Mining 4336	20/07/09	No renewal
25.	4280	Manicaland	Black Granite Mining	27/07/09	No renewal

#### **ANNEXURE D: ANALYSIS OF EIA CERTIFICATES RENEWAL.**

<b>Year</b>	<b>Project NO.</b>	<b>Project Name</b>	<b>Date of issue</b>	<b>Expiry date</b>	<b>Date renewed</b>	<b>Time Overdue (months)</b>
<b>2009</b>						
1	504	Avoca 9 mining syndicate	13.02.07	13.02.09	15.12.09	10.2
2	480	RADCO mine	27.02.07	27.02.09	23.03.10	13
3	862	Stanley mine	07.03.07	07.03.09	16.08.10	17.6
4	1625	Last Kick 10 mine	16.07.07	16.07.09	19.06.10	11.3
5	724	Dericos mine	20.02.07	20.02.09	02.08.12	36.5
6	1285	Rosary 3 mine	27.02.07	27.02.09	19.03.10	12.8
7	773	Plain 3 & Gold mine	27.04.07	27.04.09	16.10.09	5.7
8	1626	Spelonken 8 mine	31.07.07	31.07.09	13.02.09	Renewed within stipulated time
9	751	Dulana 22 mine	02.05.07	02.05.09	02.05.10	12.6
10	645	Star gold mine	05.03.07	05.03.09	28.07.10	15
11	553	Medic syndicate mine	15.03.07	15.03.09	28.07.10	16.7
12	641	Arcadia 4 mine	17.04.07	17.04.09	12.06.12	38.4
13	1879	Dulana 45	27.08.07	27.08.09	29.07.10	11.2

14	423	WAPP mining project	04.12.07	04.12.09	16.02.11	14.6
15	467	Amazon mine Gwetera 48	05.03.07	05.03.09	28.07.10	17
16	600	Magobomining and milling	21.03.07	21.03.09	25.03.09	0.13
17	472	Canterbury mining project	10.09.07	10.09.09	16.01.10	4.3
18	599	Benini 8 mine	15.01.07	15.01.09	26.02.10	13.6
19	1530	Miralto, Goodhope 3 & 6 mines	16.07.07	16.07.09	11.09.12	38.4
20	1315	Shamva 120 mine	17.06.07	17.06.09	13.02.10	8.0
21	982	Caledon 48 mine	20.03.07	20.03.09	12.08.10	17
22	983	Orion 19 mine	20.03.07	20.03.09	12.08.10	17
23	1205	Alliance 7 mine	27.04.07	27.04.09	02.09.10	16.5
24	1350	Forbes 38 & Brixton 30 mines	27.04.07	27.04.09	15.10.10	17.9
25	1341	Dillion 39/40 & Deal mines	27.04.07	27.04.09	01.09.10	16.4
26	2038	Bechanis 17,32 & 33	10.09.07	10.09.09	09.07.10	12.2
27	4376	Foot 28 mine	31.07.07	31.07.09	04.05.10	9.2
28	1698	Loveless 14 mine	06.06.07	06.06.09	21.03.11	21.8
29	704	Bemberi mine	18.05.07	18.08.09	13.09.09	Renewed within stipulated time
<b>2010</b>						
1	488	Money Box 44 mine	05.03.08	05.03.10	10.02.10	Renewed within stipulated time
2	3465	Elliot 30 mine	14.01.08	14.01.10	15.07.11	18.2
3	454	Mondo 3 mine	29.01.08	29.01.10	02.08.12	29.5
4	2701	New Brixton 111/8	02.09.08	02.09.10	12.08.10	Renewed within stipulated time

<b>2011</b>						All licences were not renewed
<b>2012</b>						
1	4555	Inyika mine	29.10.10	29.10.12	25.09.12	Renewed within stipulated time

**ANNEXURE E: GOLD MINERS OPERATING WITHOUT DISCHARGE AND EMISSION LICENSES**

Province	Project No	Date EIA was granted	Number of years in operation	Potential revenue lost US\$*
<b>MIDLANDS</b>				
CUPRUM 8 MINE & MILL	822	01/02/2007	5	1 700
GOLDEN REEF MINING-ALLUVIAL CHROME MINING& PROCESSING	4930	28/09/2011	1	340
WEL MINING CHROME SMELTING & PROCESSING	1000	04/05/2007	5	1 700
POLLY MINE & MILL	2636	11/02/2008	4	1 360
KING COBRA CUSTOM MILL	2063	06/07/2007	5	1 700
ONSTALL MINING AND MILL	990	05/03/2007	5	1 700
BIG BOOM CUSTOM MILL	846	08/02/2007	5	1 700
FORT KNOX MINING & MILL EXTENSION	92	18/06/2009	3	1 020
SLOPE MINE MILLING PLANT	1370	10/09/2007	5	1 700
<b>MASVINGO</b>				
SHERAZADE MINE & MILL	3821	25/09/2008	4	1 360
TEXAS 8 GOLD PROCESSING PLANT	4666	01/08/2011	1	340
<b>MATEBELELAND</b>				
EXCHANGE B CUSTOM MILLING PLANT	4579	16/02/2010	2	680

MATANDA 2 MILLING CENTRE	1198	19/06/2007	5	1 700
<b>TOTAL</b>				<b>17 000</b>

*\*-Minimum charge of \$340.00 per licence per annum was used*

#### **ANNEXURE F: DELAYS IN PROCESSING LICENCES**

<b>Name Of Mine</b>	<b>Date of Application At Province</b>	<b>Date Application sent to Head Office</b>	<b>Time taken from province to H/O</b>	<b>Date Licence issued</b>	<b>Time take to process licence at H/O</b>	<b>Total time taken to process licence</b>
<b>1.</b> Maligreen 31 Mine	5/3/12	16/3/12	11days	27/6/12	3 months	3 months 11 days
<b>2.</b> ZimplatsNgezi	23/1/12			15/8/12		7 months
<b>3.</b> Murowa Diamonds	26/1/12	28/1/12	2 days	2/5/12	4 months	4 months 2 days
<b>4.</b> Trojan Nickel mine	10/3/12	4/11/12	8 months	29/12/11	1 month 25 days	10 months
<b>5.</b> Hwange Colliery Company	16/5/11	9/11/11	6 months	29/12/11	1 month 20 days	7 months
<b>6.</b> Mazowe Mine	21/3/11	28/9/11	6 months	29/12/11	3 months	9 months
<b>7.</b> Jena Mines	16/2/11			6/10/11		8 months
<b>8.</b> Redwing Mine	26/1/11	26/8/11	7 months	6/10/11	1 month 10 days	8 months

<b>9.</b> Blanket Mine	29/4/11			26/7/11		3 months
<b>10.</b> Exmin Mine	10/1/12	13/3/12	2 months	17/4/12	1 month	3 months
<b>11.</b> Moven Mine	9/3/12	13/3/12	4 days	17/4/12	1 month	1 month 4 days
<b>12.</b> Turk Mine	1/12/11	10/2/12	2 months	17/4/12	2 months	4 months
<b>13.</b> Wagner Mill	28/2/12	21/3/12	1 month	17/4/12	1 month	2 months
<b>14.</b> Magobo Mill	19/3/12	21/3/12	2 days	17/4/12	1 month	1 month 2 days
<b>15.</b> Canterbury Milling	8/3/12	27/3/12	19 days	17/4/12	1 month	1 month 19 days
<b>16.</b> Wapp Milling	31/1/12	28/2/12	1 month	17/4/12	2 months	1 month 2 days
<b>17.</b> DTZ Ozgeo	22/5/12	22/5/12	1 day	10/7/12	1 month 10 days	1 month 11 days
<b>18.</b> DMC	6/3/12	22/3/12	16 days	23/4/12	1 month	1 month 16 days
<b>19.</b> GYE	02/3/12	6/3/12	4 days	23/4/12	1 month 17 days	2 months
<b>20.</b> Anjin Mine	3/3/12	29/3/12	26 days	23/4/12	1 month	2 months