

# Press and Environmental Management Agency (EMA)'s Active Role in Reporting and Monitoring Environmental Degradation Caused by Small Scale Artisanal Gold Panning in Zimbabwe A Case of Shurugwi Peri Urban

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## Abstract

Small scale artisanal gold mining, popularly known in Zimbabwe as chikorokoza( illegal gold panning), has become one of the major causes of environmental degradation currently taking place at alarming proportions countrywide. The country's mineral rich Great Dyke, cutting across the country is mostly affected. In a bid to raise public awareness, and protect the environment from further damages, the Environmental Management Agency ( EMA), and the Zimbabwean press, have embarked on reporting and educating Zimbabweans about the negative effects of small scale artisanal gold mining, on the country's natural environment. Implicated for being the major cause for the prevalence of illegal gold mining is the country's high rate of unemployment. The economic decline has led to increase in retrenchments hence retrenched workers have no other means of irking a living, besides invading the country's major rivers, mountain slopes and the countryside, to pan for gold. The application of mining methods which are not environmentally friendly, cause massive environmental degradation. The panning sites are deforested by the artisanal miners who fell trees for firewood, shelter and mine props. On the other hand, the country's river beds, river banks, valleys, the countryside and mountain slopes, are littered with deep trenches, wide gorges and disused mine shafts, left behind by marauding illegal gold panners, who desert the panning sites, when new gold deposits have been discovered elsewhere. After realizing that small scale artisanal gold mining had caused unprecedented massive environmental degradation in many parts of Zimbabwe, the government introduced the Environmental Management Agency ( EMA) in March 2007. EMA was tasked to curb environmental degradation caused by illegal gold mining, by engaging artisanal miners throughout Zimbabwe, educating them to apply environmental friendly mining methods. . After EMA's declaration of war on makorokoza ( illegal gold panners) through Operation Chikorokoza Chapera ( Operation Illegal Gold Panning is Over), the Zimbabwe Republic Police fight running battles with illegal gold panners countrywide. These scuffles bear no positive results, because artisanal gold mining still escalates, causing massive environmental degradation. Heavily panned and environmentally devastated Shurugwi, is case study representing other places affected by illegal gold mining activities in Zimbabwe Zimbabwe is signatory to a number of international conventions on environmental protection and management, which call for consented effort to uphold good methods of managing the natural environment. Therefore this paper intends to explore how EMA and the press' active participation raise public awareness, to influence government to act.

**Keywords :** Environmental Management Agency ( E M A ), Press, chikorokoza (illegal gold panning) , artisanal, degradation Shurugwi.

## 1.0 Background Introduction

The Environmental Management Agency (EMA)'s inception in 2007 under the Environmental Management Act (Chapter 20:27) through Statutory Instrument 103 of 2007, ushered in a new dispensation in the manner Zimbabwe's natural resources had to be managed, with emphasis on how the resources should be conserved. In an endeavour to curb and control environmental degradation and ecological disaster respectively, EMA is organized into two departments responsible for carrying out EMA's core business. These are; the Environmental Protection Department responsible for enforcing environmental legislation and setting up of environmental quality standards, and the Environmental Management Services Department, mandated to collect, produce and disseminate information to society through the Environmental Education and Publicity Unit and the Environmental Planning and Monitoring Unit. Although this paper focuses mainly on peri urban Shurugwi's small scale mining activities, it must be noted however that EMA's active participation targets a variety of issues responsible for environmental degradation, since its mission is to regulate, monitor and promote sustainable management of natural resources and the protection of the environment with stakeholders participation.

In a bid to curb environmental degradation in Zimbabwe, the press and the Environmental Management Agency have embarked on active participation by creating public awareness to conscientise Zimbabweans on how they have immensely contributed to the depletion of natural resources as well as massive environmental degradation. Besides focusing on mining activities, EMA and the press report on issues related to hazards

caused by the depletion of wetlands, the destruction caused by veld fires, toxic waste, water pollution and effects of poor farming methods as well as the rampant felling down of trees in areas where people have been newly resettled. All this has been done to fulfill EMA's five goals namely:

- To create an enabling legal framework for improved environmental management
- To provide a reliable and easily accessible environmental information system for improved decision making.
- To be an effective, efficient and dynamic self sustaining organization.
- To ensure a clean, safe and healthy environment and the sustainable use of natural resources and
- To promote environmental stewardship at all levels.

It is in this regard that this paper intends to find out how successful the Zimbabwean press and EMA have been in their active participation in natural environment management, taking into account the fact that the small scale mining sector in Zimbabwe and Shurugwi in particular, is still responsible for massive environmental degradation along the country's major rivers and the countryside where illegal gold panners dig for alluvial and reef gold, indiscriminately, felling trees, digging out deep gorges and polluting river water with toxic material such as mercury which they use to extract and trap reef gold. The major objectives are to critically analyse and assess the role played by the Zimbabwean press and EMA (Environmental Management Agency) through their active participation in natural environment management, to examine the discourse applied by both the Zimbabwean press and EMA in a bid to strike the hearts and minds of the Zimbabwean society for it to conserve and effectively manage the natural environment.

## **2.0 The History of small scale gold mining in Zimbabwe**

The small scale gold mining activities witnessed in Zimbabwe today are a replica of early mining activities which took place between the Limpopo and Zambezi Rivers. Phimister et al (1953) note that some mining activities carried out by individuals took place nearly one hundred years ago. Pre – colonial gold mining for reef and alluvial gold, started towards the end of the ninth century A.D, carried out by men and women. They further note that a total of 7 to 9 million ounces of gold were produced from the late 9<sup>th</sup> century to 1900. The research team and Mr. Munyoro from the Small Scale Miners' Association of Zimbabwe heard frequently about the guidance on gold mining given by the spirit mediums and their great knowledge on sources of gold. If miners ignored the instructions of the spirit mediums to use gold wisely for the well-being of the whole community, they sometimes died suddenly and painfully under mysterious circumstances. Ellert (1993) notes that records show that Zimbabwe traded gold with the Portuguese from the 15<sup>th</sup> Century. Gold was panned from rivers such as Mutare, Odzi, Mazowe, Sabi, Angwa and Ruenys. He asserts that these rivers were not only popular for their rich gold deposits, but were used as trading routes by Portuguese from their trading centre, Sofala (now Beira). Gold was then exchanged for silk, black and white cloth, beads and spices. After the early Zimbabwe rulers of the Changamire Empire found out that the trade terms with Portuguese were unfair, they fought them and killed some of the Portuguese, thus reducing trading contacts with them, ushering in the era whereby Asians and other European countries joined the rush to the rivers of gold.

The most striking feature of gold panning is how little it has changed over hundreds of years, as most of the technology remains the same. Also, small scale gold producers still feel that they are cheated by unscrupulous buyers and panning is predominantly done by women. Pictures from Zimbabwe's National Archives show that "negresses were involved in gold panning" as the pictures depict black women gold panners working and actually sieving for gold with white men.

## **2.1 Causes of small scale gold panning in Zimbabwe**

The intensification of droughts since mid 1980s resulting in frequent crop failures and rising food insecurity forced many Zimbabweans mostly in rural areas to migrate to cities seeking for employment. Those who failed to secure jobs had no option besides joining others who were already panning for both alluvial and reef gold along Zimbabwe's major rivers and mountain slopes, including the countryside where gold deposits were discovered along Zimbabwe's Great Dyke. Milne and Marongwe (1995) note that the so – called "small – scale" mining by illegal gold panners, emerged as a serious topic of debate in the media during the 1995 drought. It was perceived that thousands of communal farmers were leaving their dry lands to pan for gold to earn a living. One body of political opinion supported the panners who had no other options for survival besides gold panning. Another contrary view which EMA accepts was that the panners were destroying the country's river systems and causing severe siltation through poor, crude and old fashioned mining practices.

Zimbabwe's economic meltdown increased the rate of illegal gold panning in Zimbabwe. On Friday 18 July 2008, The Mail and Guardian newspaper announced that the Zimbabwe inflation figure has risen to 9 million percent, and the unemployment rate rested at 80 percent. The Reserve Bank of Zimbabwe has printed a new Z\$10 trillion dollar note. School going children abandoned school as drop outs and went panning for gold. Their parents could not afford paying exorbitant school fees. Gold panning became rewarding and lucrative

business.

On the other hand, illegal gold panning was the only remaining hope to earn foreign currency such as the US dollar, the South African rand, the Botswana pula and the British pound. Even weak currencies such as the Malawian and Zambian kwacha, as well as the Mozambican metical had become popular such that Zimbabweans who had possession of them was considered safer and self sustained. Therefore, EMA and the Zimbabwean press' attempts to curb illegal gold panning through public awareness on its causes for environmental degradation, has fallen on deaf ears .

Three quarters of Zimbabwe is in one way or the other subjected to illegal gold panning. For instance most of it is found along the Great Dyke ( a mineral rich belt that stretches from the south to the north across Zimbabwe). Areas mostly affected and prone to environmental degradation are those around; Gwanda, West Nicholson, Filabusi and Esigodini in Matebeleland South, Mberengwa, Zvishavane, Shurugwi, Kwekwe and Gokwe in the Midlands, Kadoma, Chegutu and Chinhoyi in Mashonaland West, Bindura, Harare and Shamva in Mashonaland Central and East, Penhalonga, Rezende, Mutare and Chimanimani in Manicaland and Masvingo Province..Large rivers and their tributaries are areas which are heavily panned and environmentally devastated. As noted in a research produced by The African Community Publishing and Development Trust in 1995 and in collaboration with the Associated Mine Workers' Union of Zimbabwe, the Zimbabwe Chamber of Mines, the Small Scale Miners' Association of Zimbabwe and the Ministry of Mines for the National Programme of Action for Children Secretariat, the Ministry of Health and Child Welfare and UNICEF Zimbabwe, gold provides over 45% of the value of total mining output. There are 600 gold mines, with the largest 17 producing 70% of the annual output. Gold is one of the main export earners in Zimbabwe.

Shurugwi in particular is a gold rich area that has attracted hundreds of illegal gold panners in a move almost similar to the gold rush of California in the United States of America. They came from all corners of Zimbabwe to dig and pan for the precious metal on the surrounding hills and such rivers as Mutevekwi, Runde, Dimbwi, Mutevekwana, Hemi, Manzimudhaka and Pisamoyo and their tributaries. Areas around Wanderer Mine, Peak Mine, Dunraven Falls, Boterekwa, Musasa, Surprise, Princess Farm, Mangwenede, Makusha, Mabhogadhi, Chironde and adjacent areas, are heavily panned illegally, causing unprecedented damages to the countryside's environment, as well as increasing siltation along the major rivers. Nothing seems to be foreseeable to stop the gold rush, and its negative impact on the environment because of abject poverty experienced by peasant farmers and the unemployed, who now resort to gold panning as the only source of income. Besides, as noted by Farai Machivenyika and Mabasa Sasa, colonists in the newspaper The Southern Times dated 21 – 28 April 2012, "First the land then the mines, Zimbabwe assumes control of the mining sector" This empowerment drive follows the Fast Track Land Reform Programme of 2 000 that resettled 300 000 families on land previously owned by 6 000 white farmers in fulfillment of the 1966 – 1980 armed struggle's objectives.

President Robert Mugabe, quoted in The Southern Times 21 – 28 April 2012 said "Our resources must be exploited to benefit our own people. Do you think God is a fool for placing all these natural resources in our land?" Felix Njini reporting in The Southern Times from Windhoek quoted these utterances by the President to imply that it is some form of "Resource Nationalism" which is here to stay and no longer a matter of debate. The National News newspaper dated 2 August 2010 referring particularly to the ravaging impact of gold panning in Shurugwi read, "Panners invade suburb." The paper's Midlands Correspondent noted that, the panners' activities along streams adjacent to the high density suburb known as Makusha, complain that the panners dump their rubble in the suburb, threatening to block residents' drainage systems. They went on to say that illegal gold panning at the disused Tebekwe Mine shaft 300 metres from the residential area, posed health and environmental hazards. Jane Shoko, a resident said, "Our houses, health and well being are in danger. This is a life threatening situation that needs to be addressed urgently". Another resident, Talent Mapiye said, "At times you find rubble dumped in our drainage trenches and this is likely to cause blockages." Shurugwi Town Council chairman, Councillor Bule Madzitire, expressed concern over panning activities at the disused mine and peri –urban Shurugwi. He said, "The panners normally operate at night in fear of the police, and at times there are some people who are legally into mining who hire the services of illegal gold panners to extract ore from the disused mines on their behalf."

### **3.0 Research methodology**

The researchers used triangulation to test the hypothesis and assumptions. A variety of data collection and analysis methods that included interviews, surveys, observations, semiotics, textual and critical discourse analysis were applied. Priest (1996) notes that semiotics is the study of signification and communication signs and symbols. Semiotics was central in this paper because the researchers wanted to find out how meanings from the public and private press in their articulation of EMA's active participation in natural environment management in Zimbabwe were taken heed of by Zimbabweans to enable them consider making strides to conserve the country's natural resources and the environment, in order to benefit present and future generations. Secondary data on issues related to EMA's active participation, from the Zimbabwean press and EMA's posters,

pamphlets and billboards used to find out particular messages disseminated to create public awareness on environmental degradation, and how to manage it by conserving both renewable and non renewable resources. Textual analysis to determine manifestations of both published and verbal communication through systematic, objective, qualitative and quantitative analysis. Berger (1998) postulates that textual analysis is a way of learning something about people, examining and scrutinizing what they write and say. As a result, textual and discourse analysis were applied to study spoken and written messages by the press, EMA, small scale gold miners themselves, as well as gold buyers and traders. Observations were used as data collection methods in order to get first hand and authentic information through active participation in gold mining activities in peri-urban Shurugwi by the actual researchers in this study. On the other hand interviews were conducted with small scale gold miners at particular small scale gold mining and panning sites mainly Mutevekwi, Dimbwi, Manzimudhaka, Hemi, Runde, Mutevekwana and Pisamoyo rivers in the area, including along mountain slopes and the landscape bordering Shurugwi mining town.

#### 4.0 Research discussion

The panning methods applied by makorokoza (illegal gold panners) are mainly responsible for the environmental degradation occurring along Zimbabwe's major rivers and the countryside.

Alluvial or riverbed mining (or gold panning) has serious environmental impact. Mostly the majority of the panners use horizontal and vertical tunneling methods. Others use traditional sand washing methods. A study carried out by Milne and Marongwe (1995) reveal that nearly 46% of the panners found their gold in river beds or channels, through sand washing, shallow and deep pits. Others noted that they got their gold from river beds and banks, using horizontal tunneling to undercut river banks. During heavy rains, the river banks often collapse, resulting in loss of vegetation, erosion and river siltation.

In most cases deep gullies and dongas are dug out leaving behind deep holes and open craters as deep as ten to twenty metres or more, unfilled and causing a deadly hazard to both animals and human beings. These deep gorges are indiscriminately dug out without any conservation methods applied, because as soon as the panners realize that the soil no longer holds any gold and is exhausted, they quickly abandon it to go to another site where gold is abundant

Use of chemicals such as mercury by reef gold panners has been of major concern since they contaminate rivers and streams, destroying aquatic life and other animals depending on particular poisoned rivers for drinking water. Contaminated fish can be consumed by people and other animals feeding on fish, resulting in deaths and a variety of diseases. Wolff (1993) also notes that the process of separating gold using mercury involves heating up the amalgam in open pans in order to recover the gold. The chemical vapour escapes into the atmosphere and contaminates the air, soil and subsequently the rivers. The miners are also exposed to highly poisonous chemical vapour.

From public awareness created by the Zimbabwean press after the Ministry of Natural Resources Management realized that natural resources needed close monitoring and protection from hazards caused through carelessness and negligence, EMA embarked on a massive drive to punish people found conducting illegal gold mining activities in peri - urban Shurugwi. As a statutory body responsible for ensuring the sustainable utilization and protection of Zimbabwe's environmental goods and services, EMA's establishment under the Environmental Act (Cap20.27) through Statutory Instrument 103 of 2007, saw its active participation by making tangible strides in protecting the environment. EMA has distributed pamphlets, flyers, booklets and charts written in local languages to local communities in peri-urban Shurugwi and Zimbabwe in general, conscientising and warning people living in areas prone to illegal gold panning against destruction of the natural environment. The Zimbabwe Republic Police also raid panning areas to enforce Operation Chikorokoza Chapera (Operation Illegal Gold Panning is Over) enacted in March 2007. EMA has also appealed to people in peri-urban Shurugwi where small scale gold mining massively occur to inform the police, local headmen and councilors about illegal gold panning and small scale gold mining activities which cause environmental degradation. EMA encourages small scale gold miners and panners to form cooperatives legalized by local councils, Environmental Management Agency and the Ministry of Mines. EMA conducted quiet a number of workshops in Shurugwi urban and surrounding areas by engaging makorokoza (gold panners), calling them to attend some of the meetings where they encourage them to look for experts who will teach them proper ways of digging for gold, from at least 50 metres from the rivers banks

In addition, EMA visited schools, churches, panning sites, communities including chiefs, councilors and politicians, telling them about the need to protect the environment from ravaging veld fires some of which are directly caused by illegal gold panners themselves, through carelessness and negligence. EMA has engaged villagers in peri-urban Shurugwi to attend fire fighting seminars to form village fire fighting teams. For instance in 2010 alone, EMA embarked on an extensive campaign of veld fire suppression and management, launched by the Minister of Environment and Natural Resources Management Francis Nhema on 14 May 2012. The education and awareness campaigns on how to suppress and fight fires has been ongoing over the years. EMA has

embarked on the formation of environment committees in peri-urban Shurugwi to monitor mineral panning and quarrying, environmental degradation and gully formation, soil waste management, hazardous substance spillages, deforestation, wetland and stream bank cultivation, which occur in alarming proportions in areas that have been under massive illegal gold panning.

The causes for illegal gold panning justify the reasons why it is prevalent and escalating at unprecedented levels. In an interview with Farai Moyo and Munyaradzi Rusere of Village I Rietfontein Farm in Shurugwi said illegal gold panning (chikorokoza) is carried out without stopping since options are limited as panners;

- Buy food especially maize meal and grain to feed their starving immediate families and extended families in rural Zimbabwe.
- Pay school fees (by unemployed parents and school children from child headed families whose parents succumbed to HIV/AIDS pandemic).

The state of affairs concerning environmental conservation has therefore led to the establishment regulations and laws to minimise illegal gold panning.

#### **4.1 Legislation used**

EMA resorted to legally recognize environmental rights through the Environmental Management Act CAP 20:27 Section (4) (1)(a)(b)(c). The Act clearly states that every person shall have a right to:

- Clean environment that is not harmful to health.
- Access to environmental information.
- Protect the environment for the benefit of present and future generations and participate in the implementation of the promulgation of reasonable legislative, policy and other measures. (Mapako 2011).

Therefore these rights cannot be enjoyed in isolation from social and political rights since they are interdependent to entail the right to life and peaceful co-existence. When these rights are violated, communities should be able to demand redress and compensation.

#### **4.2 Statutory Instrument 12 of 2007 makes provisions that;**

- Transporters of hazardous substances must do so under a permit or license.
- Statutory Instrument 5 of 2011 stipulates that such transportation must be confined to 06:00hours and 18:00hours.
- Statutory Instrument 12 of 2007 stipulates that any accidental spillage must be reported to EMA both verbally and in writing within 8 hours and the transporter should ensure that the area is cleaned up to retain its usable state.

#### **4.3 Environmental Management Act (CAP20:27) and the Entrepreneurs.**

Entrepreneurs should note that;

- Development must be sustainable, socially acceptable, economically viable and environmentally friendly.
- They must minimize negative impacts of their activities on the environment and further safeguard people environmental rights.
- Any person including an entrepreneur who causes pollution or environmental degradation shall meet the cost of remedying such pollution or environmental degradation and any resultant adverse effects.
- Waste generated shall be controlled from the point of generation to final disposal in a manner that prevents and minimizes pollution.

#### **4.4 Mines and Minerals Act (1976)**

The Act calls for mandatory consultation with the occupier or owner of the land on which the project is located. The Mines and Minerals Amendment Bill 2004, section 157 proposes that miners as far as possible should reasonably and practically rehabilitate the environment affected by their operations to its natural predetermined state.

#### **4.5 The Zimbabwean press' coverage of EMA's active participation in natural environmental management**

Gritzner(1989) notes that every living thing has an environment within which it exists. Each life form depends on its environment to sustain it. He also notes that an environment includes living things such as plants and animals, as well as non living things namely:- soil, air, water and energy needed for life, make up the physical environment. In a particular environment, the ways of living and non living things work together and relate to

each other make up an ecosystem. Therefore the destruction of an environment upsets ecosystem of a particular place. EMA's active participation as earlier noted in this study, is to regulate, monitor, promote sustainable management of natural resources and the protection of the environment through workshops, environmental education, environmental clubs for schools, environmental competitions for communities, corporate, NGOs and individuals, national commemorations for national and international environment days, environmental projects, research, trainings and the Zimbabwe Environment Outlook Report (ZEOR). The press in this regard, has taken centre stage in blowing the whistle on issues related to mining activities' causes for concern in as far as environmental degradation is concerned, noting what EMA authorities do and say against mismanagement of natural environment.

Besides focusing on environmental damages caused by mining activities, EMA sued Gweru and Norton city councils for discharging affluent in the Gweru and Manyame rivers respectively. The Sun (a Gweru based community newspaper) dated 12 October 2012 read; "EMA drags council to court". In this case, Gweru city Council was embroiled in a dispute with EMA over seeping of raw sewage from the medium density suburb of Athlone. The 180 kilometres long river is a lifeline to thousands of people living downstream. Despite being fined \$500 by EMA as a deterrent the council still failed to rectify the problem. The paper read that Timothy Nyoka, EMA's spokesperson said EMA was taking legal action against the city council since the pollution was causing untold damage to the environment, and was a risk to people and animals using and drinking the water. The Bulawayo City Council was fined US \$10 000 by EMA in 2012 for discharging raw sewage into Umguza River as stated in The Chronicle dated 24 January 2013. This therefore is contrary to the notion that Small scale gold mining activities in Zimbabwe contributed immensely to environmental damage on the landscape and along the country's major rivers with alluvial gold deposits. The high rate of siltation coming from numerous sources caused such unprecedented alarm that immediately invited EMA and the Zimbabwean press to intervene and blow the whistle by alerting and conscientising the nation to take heed and combat the scourge. Operation Chikorokoza Chapera (Operation Gold Panning is over) was launched in March 2007, to curb illegal gold panning. Although President Robert Mugabe on launching the Mashonaland Central Community Share Scheme said; "There has to be good understanding that Zimbabwe's resources belong primarily to Zimbabweans," the way these resources are managed and exploited are of paramount importance, to avoid "ecocide".

Interviewed panners on the contrary said they were not concerned about the side effects of their panning activities as long as they were getting the gold. One of them who asked for anonymity said, "We survive through panning and we are not worried that the gold belt is going in the direction of the residential area. As long as the gold is there, we will continue conducting our activities towards the area.". On the other hand, police in Shurugwi said they were conducting routine raids along the peri-urban area's rivers and disused mines. One Shurugwi police officer at Shurugwi Police Station said, "We will continue the raids for as long as the panning continues" Ironically some of the police officers have been implicated for accepting bribes from arrested panners whom they let off the hook, causing difficulties for EMA, which finds it even difficult to monitor the situation when those who are supposed to arrest people who cause environmental degradation are left scot free, causing further environmental degradation and damages at unprecedented levels.

## 5.0 Conclusion/ Recommendations

Education and awareness on how to manage and protect our natural resources has been an ongoing exercise in Zimbabwe dating back to the colonial era, but what needs to be emphasized more by the Zimbabwean press and the Environmental Management Agency (EMA) are the devastating impacts of mining activities, either corporate or small scale, not on just the loss of property, siltation, water pollution, deforestation, water poisoning, environmental degradation an ecological disaster, but the impact on the ecosystem for the future generations; how illegal small scale gold mining accelerate land degradation, water pollution, soil erosion and ecological disasters, thereby reducing land productivity and rendering human and animal life vulnerable. With Zimbabwe's small scale gold mining sector becoming widespread due to unemployment, it has become difficult for the press and EMA's active participation to bear fruit as more people enter into illegal gold panning as a means of survival, thus inflicting more damage to the natural environment and depletion of non-renewable resources such as gold. This leaves future generations with no option but to inherit a Zimbabwe which will not be suitable for human, animal and plant habitation. The state of affair needs a holistic approach where all stakeholders play their part to see a better place to live in.

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