

## AN ANALYSIS OF THE CHALLENGES FACED BY SMALL SCALE CHROME MINERS IN ZIMBABWE.

### Nyamwanza Tonderai.

Lecturer, Centre for Entrepreneurship, Midlands State University, P Bag 9055, Gweru, Zimbabwe

### Mavhiki Severino.

(Corresponding Author)

Lecturer, Department of Business Management, Midlands State University, P Bag 9055, Gweru, Zimbabwe.  
[mavhikis@msu.ac.zw](mailto:mavhikis@msu.ac.zw), cell: +263 775 122 949.

### Mapetere Denver.

Lecturer, Department of Business Management, Midlands State University, P Bag 9055, Gweru, Zimbabwe.

### Dandadzi Johnson.

ZIMASCO, Zimbabwe

### ABSTRACT

**T**he Government of Zimbabwe introduced a ban on the exportation of chrome after exporters had failed to acquire technology for the local processing of the mineral. Following the ban, many players adopted various strategies to ensure that they continued to benefit from the extraction and exploration of the mineral. Among the efforts were efforts to have the ban lifted so that miners would sell the unprocessed chrome. The study sought to establish the effectiveness of the strategies adopted by the small scale tribute miners following the ban. The findings of the study were that the production rates had fallen and there was lack of capacity by smelting companies to take all the ore. Low prices offered by the smelting companies' together with the high operational costs forced some small scale miners to divest into gold mining and others to scale down their operations.

**Key Words:** small scale, chrome mining, ban, chrome ore.

## **Introduction**

The Small to Medium Enterprises (SMEs) sector has seen an emergence of small scale mining slowly taking centre stage in Zimbabwe and overtaking communal and subsistence agriculture. A lot of people have now gone into mining and these indigenous people have been categorized as Small Scale Miners (SSM). Zimbabwe just like many African states has a policy of value addition on most of its mineral resources, and recently a ban was introduced on all raw chrome exports resulting in many small scale chrome miners crying foul, closing operations and lobbying the government.

## **2.0 Background to the Study**

The Government of Zimbabwe introduced a policy of mineral beneficiation in the chrome mining sector in April 2011 and the policy resulted in total ban of all raw chrome exports. The objective of the policy was to allow the government to rationalize mining activities and to promote local beneficiation of the ores to enable the country to accrue fair and sustainable benefits from the minerals. However, due to viability challenges which were faced by ferrochrome companies, the Government opened the 18 months export window period commencing 21st of October 2009 to allow SSM to export unprocessed ore. This was done to facilitate generation of funds by small scale chrome miners for capitalisation of the industry and mobilisation of funds into the fiscus. The chrome ore exports were to be subjected to a 15% export levy that was later increased to 20% with effect from 1 August 2010 and an additional 2% levy. Upon the lapse of the export window on 21 April 2011, the ban was re-imposed resulting in a public outcry by Small Scale Miners (SSM). According to the Ministry of Mines and Mining Development Report April 2011, there was a total of eight companies which had smelting facilities, with available smelting capacity of 370 320 tonnes against an installed capacity of about 700 000 tonnes, leaving an excess of 329 680 of chrome ore. A total of about 509 000 tonnes of chrome ore valued at US\$63.1 million were exported during the export window by small scale chrome miners with the government realizing a total of US\$8,1 million from 2% royalty and 20% export.

After the ban, SSM adopted a number of strategies to either remain in business or to minimise losses. These included lobbying the government to lift the ban, divestiture to preserve cash, negotiating and entering contract agreements with ferrochrome companies and some diversified into gold mining. Contract mining, as one of the strategies adopted by small scale chrome miners, involved SSM entering into contract agreements with ferrochrome companies to which they supply chrome at an agreed price. According to the production statistics from ferrochrome companies, only a total of 46,322 tonnes was supplied by small scale miners who entered into contract agreements with Zimbabwe's ferrochrome companies from the time the ban was effected to December 2011, which translate to a monthly average production rate of about 6,000 tonnes. As a result the contract mining strategy has not helped the miners in any way.

## **3.0 Statement of the Problem**

SSM are facing viability challenges as a result of the export ban on ferrochrome. As a result, they have adopted a number of strategies which did not yield the desired results. This study seek to analyse whether the strategies adopted by small scale miners to cushion the negative effects after the imposed ban of raw chrome exports were successful.

#### **4.0 Objectives**

- a) To analyse the extent to which the small scale chrome miners' operations have been affected by the chrome export ban.
- b) To highlight challenges which were faced by small scale chrome miners in implementing those strategies.
- c) To come out with strategies which are sustainable to small scale chrome mining operations which can be adopted by small scale chrome miners.
- d) To find out how small scale miners can be assisted in line with Chrome Beneficiation as a Government policy.

#### **5.0 Literature Review**

##### *5.1 Political Lobbying*

Political lobbying involves making deals and influence political processes. In the face of overwhelming scientific evidence, epidemiologic studies, medical research, and public sentiment, the asbestos industry has prospered and this has not happened by luck or coincidence; it is the result of a well-resourced and coordinated lobbying by a multitude of global asbestos interests (Kazan, 2003). Following the collapse in Western demand for asbestos due to its ban, producers have mounted a global campaign to protect remaining markets and develop new ones. According to Kazan, the fact that asbestos is still being sold despite overwhelming evidence linking it to debilitating and fatal diseases is testament to the effectiveness of a campaign, spearheaded by Canada the world's second biggest Chrysotile exporter, to promote a product already banned in many developed countries. Similarly the ban of Ivory Trade by CITES in 1989, Zimbabwe and its fellow SADC member states have been leading the lobbying of the total lifting of the ivory trade ban. Under pressure from SADC states, CITES has been intermittently lifting the ivory trade ban for Southern African states allowing elephants from Botswana, Namibia, Zimbabwe and South Africa to be traded (Raffalovich, 2008). Furthermore, the Biotech industry, which is the manufacturer of GE and GMO products has also been using their political influence to lobby against banning of its products (Swinnen and Vandemoortele, 2010). The ban on GMOs by a number of European countries has seen the Biotech industry lobbying for uplifting of the ban with Monsanto, the largest biotech company which is based in USA being on the forefront (Food & Water Watch Report, 2011).

Looking at the lobbying techniques which have been used by Asbestos and Biotech industries, these are powerful companies which wield a lot of influence such that governments and policymakers listen to them. Looking at the Zimbabwe's ban on raw chrome exports, the SSM fronted by Zimbabwe Miners Federation (ZMF) have been lobbying through direct engagements with the Zimbabwe government. The issue was even debated in parliament where the parliamentary committee on Mining and Mining Development was tasked to bring all concerned parties including the ferrochrome producers who had welcomed the ban, to a public hearing. In the hearing the ZMF argued that the current smelting capacity is inadequate to take up all the raw chrome produced by small scale miners. However, looking at the lobbying by Zimbabwe's SSM and comparing it with other lobbyists mentioned, the SSM of Zimbabwe are not so powerful due to their less influence on policymakers as well as on government such that they have not been successful in their endeavour to date.

##### *5.2 Corporate Social Responsibility (CSR)*

Corporate Social Responsibility (CSR) is about the contribution a company makes to society through its core business activities, its social investment and philanthropy programs (ESD, 2006). CSR has been used by affected industries such as Tobacco industry for restoring damaged reputation, improving employee morale and maintaining and increasing the value of industries' stock (South East Asia Tobacco Control

Alliance (SEATCA), 2008). By fostering the image of a generous contributor to the community, tobacco and asbestos companies' aims are to manipulate the public's attitude towards their reputation and send the message that they are looking out for the public's best interest. Tobacco companies have often engaged in so-called 'corporate social responsibility' activities in order to promote their products while portraying themselves as good corporate citizens (Palazo and Ritcher 2005). Looking at Zimbabwe's small scale miners, these are just individuals without enough capital to sustain even their operations; hence this strategy has failed to work for them thereby supporting the point that CSR is normally associated with multinational companies with stronger financial muscles whilst it is rare to be mentioned by small and medium-sized companies (ESD, 2006).

### *5.3 Political Funding and Financial Muscle*

This involves sponsoring political campaigns in order to win votes and legislative favours from politicians. According to WHO (2008), much of the tobacco industry's influence over the legislative agenda has been achieved through political donations and the employment of effective and well-connected registered contract lobbyists skilled at advancing the tobacco industry's interests through quiet, behind the scenes, insider strategies. On the other hand, the asbestos industry formed its own body called the Asbestos Institute (AI) to promote the safe use of Chrysotile asbestos in Canada and throughout the world. According to Kazan (2003) between 1984 and 2001, the institute received a total of \$54 million from three equal donors: the Federal Government, the Quebec Government, and the Asbestos industry. The institute has provided financial aid for the creation of a dozen national industry associations in as many countries to distribute health and safety information to their members, organize training seminars, and coordinate dust-monitoring activities. Similarly, the biotech industry with the USA based Biotech Company Monsanto are heavily involved in political funding and making donations. Food and Water Watch's Report (2011) reported that the largest 50 agriculture, food patent holding companies, two of the largest Biotechnology and Agrochemical trade associations spent over US\$572 million in campaign contributions and lobbying expenditures since 1999. As alluded above, Tobacco, Asbestos and Biotechnology companies have a very strong financial muscle to sponsor policy makers and lobbyists to safeguard their business interests worldwide. However, looking at Zimbabwe's situation the SSM do not have the similar financial muscle neither to sponsor any political formation nor to make donations for them to earn some goodwill, they cannot afford to make political donations so as to have influence on the policy and legislation as being done by Tobacco, Asbestos and Biotech Industries.

### *5.4 Promotions and Advertising*

This strategy is very popular and has sustained the Tobacco, Asbestos and Biotech Industries against their opponents. Every year, the Tobacco industry spends billions of dollars around the globe on advertising, promotion. According to Action on Smoking and Health Report (ASH, 2010), in Nepal, John Players and Shikhar Filter Kings, both brands belonging to the India Tobacco Company (ITC) and BAT affiliated Surya Tobacco Company, announced a major sponsorship US \$272,000 deal with The Cricket Association of Nepal. Also not to be out done, Monsanto, the largest Biotech company in the world spent \$100 million on the ad campaign in 2011 alone and previously it had spent US\$120 million in 2010 (US Securities and Exchange Commission, 2012).

## 6.0 Methodology

Quantitative research was used in the study data was collected using interviews and questionnaires that were physically administered to small scale chrome miners in Shurugwi, Valley, Mapanzure, Bannockburn, Zvishavane and Lalapanzi which make up the population all in the Midlands Province. The population for this study is 117 small scale miners as registered by the Mining Commissioner's regional offices in Gweru as at January 2011 prior to the ban. A pilot study was administered on a sample of small scale miners who attended the mining Indaba which was hosted at Fairmile Hotel in Gweru on 23 March 2012. Of the 117 questionnaires that were administered, 76 were returned giving a response rate of 65%

## 7.0 Discussion and Findings

After the ban of the chrome ore exports, the small scale chrome miners came up with a number of strategies either to remain in business, conserve cash or to survive. A total of 24% of the respondents stockpiled chrome ore in anticipation of the lift of the ban while 17% of the respondents divested completely. The major reasons for diversiture were to conserve cash and also that chrome mining was no longer lucrative. Similarly, another 17% of the participants diversified their business interests with the majority of them entering into gold mining. The majority of the miners (26%) who entered into chrome contract mining with smelting companies were aware of the government's policy on mineral value addition whilst the remaining participants embarked on lobbying the government to lift the ban and most of these were foreigners who had invested in mining equipment and concentrate plants

### 7.1 Production Rates by Small Scale Miners

The research sought to find whether the ban had an impact on production rates on chrome miners, and data was gathered from respondents on their respective production rates before and after the ban. There is a marked difference in chrome ore production rates before and after the ban, with monthly production rates being lower after the inception of the ban. Before the ban, about 20% of the participants were mining in excess of 1500 chrome tonnes per month each and these were mainly Chinese nationals who had equipment as well as concentration plants. Currently, 1% of the participants mine over 1500 tonnes per month and the chrome miners complain that there is low demand for their product by local smelting companies. About 54% of the participants stopped chrome production after the ban citing lack of market as well as lower prices offered by local smelting companies. Looking at the current situation in the ferrochrome industry, Company A is the only company which is operating at full capacity which can be explained by the fact that small scale miners complained of low demand for their product and monopoly on the pricing of chrome ore.

### 7.2 Perception on chrome ore pricing

The study went further to establish the perception of the chrome miners towards the chrome selling prices both before and after the ban. A total of 65% of the participants were either moderately to strongly happy with the export prices which were offered before the export ban. Those who were strongly happy were the bigger players who were producing in excess of 1500 tonnes per month and were able to purchase machinery and concentrate plants to recover the fine ores. Those who were moderately happy or happy were the smaller players who were producing at lower capacities and were able to breakeven. However, 78% of the respondents revealed that they are either strongly unhappy or unhappy with the chrome prices offered by local smelting companies after the ban citing that they are monopolising the smelting business. Only 15% of the participants were either happy or strongly happy with the prices after the ban citing that its better than to close the operations. The results showed that there is a relationship between the perception of small scale miners on chrome price and the monthly production rates by small scale miners who participated in the

research. This means that the small scale miners who were happy with the prices before the ban were also producing more chrome ore during the export window while those who were not enticed by the prices were producing less. This assertion could as well mean that the current low production levels by small scale miners after export ban is due to lower prices offered by smelting companies.

### *7.3 Perception on price control systems*

Based on chrome ore pricing issue, the study sought to establish from the small scale miners what price control system they would prefer. About 34% of the participants were in favour of establishment of a joint committee which is responsible for determining the chrome ore prices from time to time as they believe this would mitigate monopoly and brings transparency. This was followed by 26% of the participants who supported the motion that the government should be in charge of price controls. About 20% of the participants felt that the ferrochrome companies should continue to dictate the chrome ore prices whilst another 20% of the participants believe that the small scale miners themselves should determine the price of their product since they know what expenditure they incurred. The findings could mean that the small scale miners do not have a clear position on who they really prefer to control the price of chrome ore.

### *7.4 Revenue Use by Small Scale Chrome Miners*

Taking note of the point earlier that higher chrome ore export prices influenced higher monthly production from the small scale miners before export ban, the research investigated how the chrome miners used the revenue they obtained when they were still exporting raw chrome. About 83% of the participants never used the money to invest in furnaces during the chrome ore export window citing that investment in furnaces is too costly while 17% indicated they were saving some of the money towards furnaces investment. About 25% of the participants claimed that they used some of the revenue they were getting in buying machinery so as to increase production. About 32% of the participants claimed they utilised the revenue to pay workers' wages and that it was not adequate for other investments while 26% of the participants claimed that they also used the money to uplift their living standards by buying personal assets. Resultantly, small scale miners who spent more money on buying machinery were producing more than those who spent most of their money on buying personal assets and paying workers only.

### *7.5 Perception on current smelting capacity*

A total of 63% disagreed that the local smelting companies have the capacity to take up all the ore which is produced by small scale chrome miners. The small scale chrome miners cited that they have huge stocks of ore lying idle and there is no market for the stockpiles and they further elaborated that the current technology in the smelting industry can not take up low quality ores and fines. This was corroborated by managers of the two smelting companies namely Company A and Company B, who pointed out that their current furnaces are open and cannot take up fines which can only be handled by closed furnaces. Additionally, the ferrochrome companies agreed that their current furnaces were not designed to take ores with a quality below 39% chrome content. Other small scale chrome miners also revealed that the smelting companies have their own mining operations and tributors who supply chrome ore for their furnaces hence they give preference to their own and tributors' ores at the expense of small scale miners' ores. This is echoed by the smelting companies like Company A and Company B who own the abundant of chrome resources and have their own operations as well as tributors who mine for them. A combined 37% of the participants agreed that smelting companies have the capacity to take up all chrome from small scale miners and many of them are the ones who have entered into chrome contract agreements by small scale miners after the inception of the ban.

### *7.6 Perception by Small Scale Chrome Miners on Owning Furnaces*

A total of 55% of the respondents agreed with the notion that small scale miners should also do chrome smelting to curb monopoly by local smelting companies. However, 23% of those who agreed to chrome smelting, had reservations on their capacity in terms of mineral resources as well as capital to invest in furnaces. About 35% of the respondents disagreed that small scale miners should do chrome beneficiation because they believe that investing in furnaces requires a lot of capital which is beyond the reach of many indigenous miners.

### *7.7 External Funding for Building of Furnaces*

The findings above then led the researchers to look at the type of external funding the small scale miners would prefer given the huge initial capital required to build furnaces. About 27% of the small scale miners believed they should acquire funds for investing in furnaces from either foreign investors or government. They indicated that foreign investors have readily available funds and showed reservations on the capability of the governments to sponsor them. Those who believed the government should sponsor them cited that the banks have no intention to provide loans to long term projects for which investing in furnaces is long term. This point is valid considering that many local banks have liquidity challenges and prefer short term loans. About 19% believed that the banks should provide funds for furnaces investment whilst the remaining 18% believed that the small scale chrome miners should form groups and channel their resources towards furnace investments. This shows that even the small scale miners who share the view that they should invest in building furnaces have contrast opinions on whether they should get funds from banks, foreign investors, forming local partners or government.

## **8.0 Conclusions**

The study identified that majority of the small scale chrome miners (26%) entered into chrome contract mining and this was necessitated by an awareness by small scale chrome miners that the export window was bound to expire and that one viable option to remain in business was to enter into contract mining with local smelting companies. The small scale miners also showed their understanding of government policy on mineral value addition, hence they were aware that they had to supply local smelting companies who would beneficiate their chrome ores. This was followed by 24% of the respondents who stockpiled ore in anticipation of a lift of the ban. The small scale miners who employed this strategy thought that as indigenous people, the government was going to lift the ban and give them another window to clear up their stocks and allow them to raise funds to invest in furnaces. About 17% of the participants stopped mining altogether after the inception of the export ban as they felt that they would operate at a loss if they were to continue operating and sell to local smelting companies who offered them lower prices for their chrome ore. About 17% diversified their businesses with a majority of them entering the into gold mining where lack of skills and expertise were cited as major threats to their new endeavours. Lobbying has been the least used strategy by small scale miners (16%) and has not been effective because most of the small scale chrome miners are dispersed and are not coordinated. However, lobbying was a major strategy which has been successfully used by established industries like Asbestos companies, Tobacco and Biotechnology industries and countries which were hit by Ivory Trade ban.

## **9.0 Recommendations**

### *9.1 Increasing smelting capacities by local smelting companies*

The government should look at increasing the smelting capacity in the long term. According to Ministry of Mines and Mining Report (2011), about a million tonnes of chrome ore is stockpiled around the country without a market. This was echoed by small scale miners who have stock piles of chrome ore and are failing to sell it while the management representatives of smelting companies from Company A and Company B confirmed that currently the international prices are low and they are not operating at full capacity. However, the researchers found out that the smelting companies suffer from high operational costs thereby failing to break-even; hence the smelting companies should come up with strategies to build more furnaces to increase production and benefit from economies of scale. This would also benefit small scale miners as they would be able to sell their chrome ore stockpiles and also increase production thereby benefiting from economies of scale as well.

### *9.2 Investment in Mining Machinery*

The small scale miners should invest in mining equipment so that they increase production. From the research findings the researcher observed that majority were producing below 100 tonnes of chrome before export ban. This low production was attributed to lack of machinery though they could break-even due to higher export prices, however they could not operate profitably after the export ban due to lower prices offered by local smelting companies. The research found out that chrome miners with machinery who managed to get contract mining agreements with local smelting companies after the export ban are breaking even despite low prices offered due to higher tonnage movement. The researcher's opinion is that the government should arrange credit facilities in conjunction with local banks to provide funds to chrome miners so that they could buy machinery and increase production in order to break-even.

### *9.3 Improvement in smelting Technology*

The researcher found out that most of the smelting companies use open furnaces which cannot consume fines and also these furnaces cannot take up low grade ores. The small scale chrome miners pointed out that most of their claims are located in the periphery and have low grades and high chrome fines. Bannock Consulting (2009) as well alluded that small scale mining is a labor-intensive activity which involves the exploitation of marginal deposits with low rates of recovery. In line with these findings the government should come out with a resolution to enforce smelting companies to renovate their furnaces or ensure that all new furnaces to be built in future should be closed so as to handle fines and also they should consume fines.

### *9.4 Lobbying*

The findings from the research showed that lobbying is not very popular among the small scale miners though their representatives once engaged the government and the issue was debated by representatives from all concerned parties facilitated by the parliamentary portfolio committee on Mining, not much on lobbying has been done. Reviewing the literature industries for Tobacco, Asbestos and recently the Indian Cotton Farmers have managed to keep their products on the market despite ban threats and restriction. The chrome miners should speak with one voice and use all their powers to influence the policymakers.

### *9.5 Formation of a Trust Fund*

According to the information provided by Ministry of Mines' Mining Promotions Division Report (2011), the previous 18 months export window generated a total revenue of US\$63.1M and the government realized US\$8.1M through royalty and levy fees which were 2% and 20% respectively. It shows that a lot of money

was pumped into the economy and government coffers which currently are no longer there due to the ban. The researchers' opinion is that the government could open the window for may be 36 months and arrange that a trust fund be established where a certain percentage of the proceeds are deposited such that the money would then be used to build furnaces for small scale miners. This would not only promote mineral beneficiation as a government policy but also enlarge the value chain of the chrome miners thereby increasing their profit margin and employment in the country.

#### *9.6 Relook at Concentration as Initial Stage in Value Addition*

A number of Chinese and a sizeable number of indigenous players had build concentration plants as a way of adding value to chrome ore before being exported. This was done in line with mineral value addition policy; unfortunately they were caught unaware as the ban on export of raw chrome also affected them. Considering that with other minerals like Platinum, concentration is only done before exporting as value addition, the government should relook at the issue and harmonise the mineral beneficiation policy to be uniform to all mineral resources.

#### *9.7 Setting a Joint Committee to Regulate Chrome Ore Prices*

The research found out that majority of the small scale chrome miners were in favour in the formation of an inclusive committee which comprises government, ferrochrome and small scale miners' representatives to be responsible for chrome ore price control. The researchers share the same view as this will go a long way in curbing monopoly on pegging of chrome ore selling price as currently the ferrochrome companies dictate the price.

## REFERENCES

1. Extending Service Delivery Project (April 3, 2006), Corporate Social Responsibility in Africa. Meridian Group International, Inc. Retrieved from [http://www.csr-weltweit.de/uploads/tx\\_jdownloads/Meridian\\_Group\\_International\\_Angola.pdf](http://www.csr-weltweit.de/uploads/tx_jdownloads/Meridian_Group_International_Angola.pdf).
2. Food and water Watch Report (2011). Retrieved from <http://www.foodandwaterwatch.org/about/annual-report/>
3. Guido Palazzo and Ulf Richter (2005): CSR Business as Usual? The Case of the Tobacco Industry. *Journal of Business Ethics*, 16 (4), 387-401.
4. Kazan – Allen, L. (2003).The Asbestos War. *International Journal of Occup Environ Health*, 9(3), 173-193.
5. Kazan-Allen, L. 2003: Canadian Asbestos: A Global Concern. Retrieved from [http://www.ibasecretariat.org/lka\\_ottawa\\_conf\\_rep\\_03\\_plus.php](http://www.ibasecretariat.org/lka_ottawa_conf_rep_03_plus.php)
6. Kin, F., Yoon, Y.C., Lian, T.Y. and Assunta, M. (2008). A perfect deception: Corporate social responsibility activities in ASEAN. Southeast Asia Tobacco Control Alliance. Retrieved from <http://resources.seatca.org/Perfect%20Deception.pdf>.
7. Raffalovich, A. (2008): “White Gold”: The Ivory Trade Ban. Retrieved from [http://are.berkeley.edu/courses/EEP131/fall2006/NotableStudent05/The%20Ivory%20Trade%20Ban\\_AmintaR.pdf](http://are.berkeley.edu/courses/EEP131/fall2006/NotableStudent05/The%20Ivory%20Trade%20Ban_AmintaR.pdf).
8. Swinnen, J.F.M., & Vandemoortele, T. (2010). Policy gridlock or future change? The political economy dynamics of EU biotechnology regulation. *AgBioForum*, 13(4), 291-296.
9. World Health Organization Policy Paper: Elimination of Asbestos Related Disease. Retrieved from [http://www.who.int/occupational\\_health/publications.WHO.policy.paper.on.asbestos.related.diseases.pdf](http://www.who.int/occupational_health/publications.WHO.policy.paper.on.asbestos.related.diseases.pdf)
10. World Health Organization. 2008. A policy package to reverse the tobacco epidemic. Retrieved from [http://www.who.int/tobacco/mpower/mpower\\_english.pdf](http://www.who.int/tobacco/mpower/mpower_english.pdf).