

**THE OCCUPATION SAFETY AND HEALTH  
OF WORKERS IN COAL MINES: FILLING  
IN THE LACUNA IN KENYAN  
LEGISLATION**

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## **DEDICATION**

I would like to dedicate this dissertation to my family. Exceptional thanks to goes to my parents, Muhindi Wanjugu and Olfa Muhindi who have tirelessly encouraged me. Also, I would like to thank my siblings Wanjugu and Kariuki and Nduta.

Finally, I would like to dedicate this dissertation to my friends both old and young.

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Finally, I am greatly indebted to Dr. Luis Franchesci for granting me the opportunity to be part of this wonderful institution.

## DECLARATION

I declare that this dissertation is my original work and has not been submitted for the award of a degree or any other award in any other university.

:

Signature  \_\_\_\_\_  
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This dissertation has been submitted for examination with my approval as University Supervisor. )

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## **ABSTRACT**

Mining is essential in the economic development of any country endowed with mineral resources. In Kenya, for instance, one block of coal in the Mui Basin has enough coal to bring in Kshs. 3.4 trillion into the economy. However, disasters in coal mines such as the Monongah disaster in a coal mine in the United States have resulted in the loss of lives of many persons who work in the mines. It is therefore important to ensure that the workers in the coal mines have legislations safeguarding them as they work in the mines. This research seeks to assess the extent to which the occupation safety and health act is safeguarded. It will also examine best practices employed in Australia and South Africa in safeguarding the safety and health of workers in coal mines. Finally, the research will make recommendations on how Kenya can follow suit and adopt various aspects of the legislations.

**LIST OF CASES**

1. Re Rollins Gold Mineral Co. (D.C.) 102 Fed. 985.
2. State v. Indiana, etc., Min. Co., 120 Ind. 575, 22 N. E. 778, 6 L. R. A. 579.
3. The Industrial Court, Cause No. 68 of 1988.

## **CHAPTER ONE: INTRODUCTION**

### **1.1 BACKGROUND**

Mining is defined as the process of extracting precious or valuable metals from the earth, and this extraction can either be in its native state or in their ores.<sup>1</sup> However, mining does not include the extraction of rocks from the earth, as this is normally referred to as quarrying.<sup>2</sup> Also, mining does not include the sinking wells in search of petroleum, unless it has been expressly provided for by law, as is the case in Indiana.<sup>3</sup> In developing countries, mining is a contributor to revenue in the economy and provides employment to the locals in the area.<sup>4</sup> According to the International Mineralogical Association, there are four thousand known minerals today. However, this research will focus on coal. In 2012, the Kenyan Government discovered coal deposits in Mui Basin, Kitui County. According to the information provided by the Ministry of Energy (as it then was), block C alone has an estimated 400,000 metric tons of coal deposits.<sup>5</sup> This is enough to bring a whopping Kshs. 3.4 trillion, at current market rates.<sup>6</sup>

John Omenge,<sup>7</sup> in an interview, stated that Kenya has at least 1 billion metric tons of recoverable coal in four exploration blocks located in the Mui coal basin located over 200 kilometers southeast of capital city Nairobi.<sup>8</sup> He added that the coal is to be used for the sole purpose of power generation as the government is currently undertaking the construction of a 960-megawatt coal electricity plant which commenced in late 2015.<sup>9</sup> This indeed is a large scale project and would therefore require a huge labour force to do the work. However, by its

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<sup>1</sup> Re Rollins Gold Mineral Co. (D.C.) 102 Fed. 985.

<sup>2</sup> Re Rollins Gold Mineral Co. (D.C.) 102 Fed. 985.

<sup>3</sup> State v. Indiana, etc., Min. Co., 120 Ind. 575, 22 N. E. 778, 6 L. R. A. 579.

<sup>4</sup> Malisa E and Kinabo C, 'Environmental Risks for Gemstone Miners with Reference to Merelani Tanzanite Mining Area, Northeastern Tanzania', 2009.

<sup>5</sup> Mutemi, A. 'Mui Coal Mines: A Blessing or a Curse? Socio-Economic and Environmental intricacies'. University of Nairobi, School of Law, 2013.

<sup>6</sup> Mutemi, A. 'Mui Coal Mines: A Blessing or a Curse? Socio-Economic and Environmental intricacies'.

<sup>7</sup> Chief Geologist in the Ministry of Energy and Petroleum.

<sup>8</sup> Available at: <http://www.coastweek.com/3737-latest-news-Kenya-to-begin-mining-Mui-coal-basin-deposits-in-2015.htm>, Accessed on 5 January, 2016.

<sup>9</sup> Available at: <http://www.coastweek.com/3737-latest-news-Kenya-to-begin-mining-Mui-coal-basin-deposits-in-2015.htm>, Accessed on 5 January, 2016.

nature, coal mining is intrinsically one of the most dangerous line of occupation. This, inter alia, is because of the following reasons<sup>10</sup>:

- a. Coal is readily inflammable and explosive especially in its finest form and frequently, coal mines contain highly flammable and explosive gases. In some cases, non-flammable gases may be present in the coal mines which can kill a coal worker inhaling the gases through suffocation.
- b. Sinking and tumbling of roofs in coal mines which approximately causes four times as many fatalities as explosions.
- c. The coal mining process, regardless of whichever method is going to be employed by the mining company, involves the use explosives on the coal deposits<sup>11</sup>. These, coupled with untold amounts of dust, are ready ingredients for nuisance diseases such as lung diseases, skin rashes and eye infections.<sup>12</sup>

The Environmental Law Alliance Worldwide states that a typical coal-fired power plant, inter alia, generates: Approximately 3.7 million tons of Carbon (IV) Oxide, about 10 thousand tons of Sulphur (IV) Oxide, 500 tons of minute particles in the air which can cause bronchitis, asthma and premature death. Further, coal plants generate 10 thousand tons of Nitrogen (IV) Oxide, 720 tons of Carbon (II)Oxide;170 pounds Mercury, 225 pounds Arsenic which causes cancer and traces of Uranium.<sup>13</sup> This indeed leaves workers in mines susceptible to hazards to their health as these substances are inhaled into the body and find their way to vital body organs.<sup>14</sup> For instance, long exposure carbon-monoxide and sulphur-dioxide which is present in the coal will deplete the oxygen in the body leading to suffocation of the worker.<sup>15</sup> This was the case in a coal mine in Montcoal, West Virginia, where 25 coal workers died. This was as result of the buildup of explosive methane gas from the coal mine.<sup>16</sup>

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<sup>10</sup> Harrington D, 'Safety in Coal Mining', *The Annals of the American Academy of Political and Social Science*, Vol. 123, *Industrial Safety* (Jan., 1926), 93.

<sup>11</sup> Andria Jahnig: 'Coal deposits of Colombia'.

<sup>12</sup> Colagiuri R, Cochrane J, Girgis S, 'Health and Social harm of Coal in Local communities- Spotlight on the Hunter region.' Beyond Zero Emissions, Melbourne, 2012.

<sup>13</sup> The Environmental Law Alliance Worldwide.

<sup>14</sup> Wendy Bines, 'The health of miners', 2015.

<sup>15</sup> Wendy Bines, 'The health of miners'.

<sup>16</sup> Available at: [http://www.nytimes.com/2010/04/07/us/07westvirginia.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2010/04/07/us/07westvirginia.html?pagewanted=all&_r=0), accessed on 5 January 2016.

In many mines, including coal mines, safety knowledge lacks both in the management and in mine workers.<sup>17</sup> Further, as is the case in Kenya, the laws governing the safety coal mine workers are inadequate and have been passed by time. Further, even when the laws are adequate, enforcement of the laws is usually inefficient. Mine owners are therefore prone to try to evade safety rules or practices even when familiar with them and with full knowledge that evasions may result in loss of not only other people's lives but of their own as well.<sup>18</sup>

Disasters such as these have led to countries and international organizations to come up with legislations safeguarding the health and safety of coal workers. For instance, the Monongah Mining Disaster, which resulted in the death of 362 workers as a result of an underground explosion, resulted in the institution of the United States Bureau of Mines in 1910 whose sole purpose was to improve the safety in mines and was followed by the Federal Coal Mine Health and Safety Acts enacted in 1969 and 1977 respectively.<sup>19</sup>

The World Health Organization has stipulated in its constitution that it is a fundamental right to all persons to have the highest attainable standard of health.<sup>20</sup> Furthermore, the Constitution specifies prevention of accidental injuries and the promotion of improvement of working conditions as functions of World Health Organization.<sup>21</sup>

The International Labor Organization<sup>22</sup> has embraced a global strategy with the aim of improving the state of occupational safety and health of employees globally and has promoted a preventive culture in relation to occupation safety and health.<sup>23</sup> Further, the Workmen's Compensation convention,<sup>24</sup> deals with the rights of compensation employees have in relation to diseases or injuries they may face in the course of carrying out their duties.

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<sup>17</sup> Rees D, Ingham F, Bello B, Murray J, Formative Research with Health and Safety Representatives. SIMRAC 030603 Track C: 'Awareness for persons affected by mining operations in South Africa'. Braamfontein: Mine Health and Safety Council, 2007.

<sup>18</sup> Harrington D, Safety in Coal Mining, 96.

<sup>19</sup> Available at: <http://www.metallixrefining.com/harmful-effects-of-mining-and-viable-alternatives/>, last accessed on 5 January 2016.

<sup>20</sup> Article 1, World Health Organization Constitution, 1948.

<sup>21</sup> Article 2, World Health Organization Constitution, 1948.

<sup>22</sup> ILO regulations.

<sup>23</sup> Available at: <http://ilo.org/global/standards/subjects-covered-by-international-labour-standards/occupational-safety-and-health/lang-en/index.htm>, accessed on 5 January 2016.

<sup>24</sup> (Occupational Diseases) Convention (Revised), (No. 42 of 1942)

The Occupational Safety and Health Convention<sup>25</sup> also deals with the issue of welfare of workers. The convention seeks to prevent accidents and injury in relation to the health of employees arising from the course of their work, by minimizing the causes of hazards intrinsic to the working environment.<sup>26</sup> The International Labour Organization has also come up with a safety and health code of practice in relation to underground coalmines. The third part of the code highlights the various hazards that ordinarily occur as a result of coal production. These include explosions, electrical risks, surface hazards and fires. The code also gives directions on how these risks can be controlled in the coal mines. Finally, it provides requirements that need to be taken into account when designing and maintaining coal mines so that they can provide a safe environment for those working therein.

The Occupation Safety and Health convention has been ratified by a number of countries worldwide. In Africa, very few countries have ratified the convention and include Botswana, Morocco, Zambia and Zimbabwe. Our very own, Kenya, has not yet ratified the convention. The issue of safety in the workplace in the past decades has not been a major issue debated upon in the country such as that of poverty and illiteracy and this may be a reason as to why Kenya has not yet, after quite a number of years of enactment, ratified the convention. Additionally, it may be a 'non-issue' to the legislators as they seem to be more keen on other issues such as increasing their salaries and going for state trips. However, Kenya has ratified and adopted 49 other ILO Conventions, of which, ten of them are Occupation Safety and Health related.<sup>27</sup>

The Safety and Health in Mines Convention, 1995 stipulates that national laws and regulations ought to delegate a competent authority with the purpose of regulating and monitoring safety and health in mines.<sup>28</sup> It also highlights what these laws ought to provide for.<sup>29</sup> This shows the task the national government has in coming up with laws and institutions with the sole purpose of catering for the occupational safety and health of persons working in coal mines.

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<sup>25</sup> 1981

<sup>26</sup> Article 4, Occupational Safety and Health Convention, 1981.

<sup>27</sup> National Profile on Occupational Safety and Health – Kenya.

<sup>28</sup> Article 5(1), Safety and Health in Mines Convention, 1995.

<sup>29</sup> Article 5(2), Safety and Health in Mines Convention, 1995.

The situation of lack of adequate health and safety laws is also present in Africa. However, some countries have appreciated the need to come up with laws protecting the safety and welfare of employees. For instance, Botswana has passed legislation such as the Mines, Quarries, Works and Machinery Act and Regulations (1978), which makes provisions pertaining to the safety, and health of persons carrying out mining operations. Further, it makes it mandatory for mines to be regulated and for inspections to be carried out in mines.

Closer home, The Constitution of Kenya, 2010, which is the Grundnorm of the state, provides that every worker has the right to fair labour practices and these labour practices include the right to reasonable working conditions.<sup>30</sup> My research will highlight that reasonable working conditions include all conditions necessary to ensure that the safety and health of workers are safeguarded.<sup>31</sup> The Occupational Safety and Health Act (2007) and the Work Injury Benefit Act (2007), have both tried to shed a general light on the manner in which employees ought to be treated and the various penalties employers face for negligence on their part in ensuring that the employees are working in good conditions.

However, these laws are still insufficient to adequately cater for the safety and health of workers in coal mines. My research will further show the need for our country to follow the examples set by other countries in protecting the safety of coal workers in the mining industry. This lacuna in the law creates a serious human rights dilemma on these workers as they are not provided for amidst all the risks and dangers they pose themselves to as they work in the coal mines. These issues, I feel, ought to be looked into.

## **1.2 STATEMENT OF THE PROBLEM**

My statement of the problem is that:

The existing policy, legal and institutional framework regarding the health and safety standards in Kenya fails to adequately protect the safety and health of coal mine workers in the extractive industries in Kenya.

## **1.3 RESEARCH QUESTIONS**

The study seeks to answer the following questions:

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<sup>30</sup> Article 41(1) Constitution of Kenya 2010.

<sup>31</sup> Article 41(2) b Constitution of Kenya 2010.

- a. To what extent are the Occupation Safety and Health laws and policies in Kenya insufficient?
- b. What lessons can we learn on the laws on occupation health and safety from other states?
- c. What are the legal effects of ratifying Occupation health and safety conventions on existing laws in the country?

#### **1.4 RESEARCH OBJECTIVES**

1. To assess the extent to which the occupation safety and health act is safeguarded.
2. Examine best practices in other states.
3. Make recommendations on the findings.

#### **1.5 JUSTIFICATION FOR THE STUDY**

It cannot be stressed how much mining is essential in the economic development of any country with mineral resources. More so, as we have seen in the introduction, coal mining in Mui Basin will bring a lot of revenue to the county and nation as a whole once the production begins. In just one block, there is enough coal to bring in Kshs. 3.4 trillion into the economy. Therefore, it will be vital to ensure that the workers in the coal mines have legislations safeguarding them as they are the ones who will, by their effort determine whether the project will be a success. Also, by implementing policies and guidelines promoting the safety and health of coal workers, other nations will also follow suit as the legislators will have set a good example on care for their citizens. Studies on the health effects of mining have shown that mining activities have proved to cause more harm than good.

Kenya is at a bargaining stage in the development of its coal mining industry and therefore requires strong laws which though exist; do not adequately cater for the welfare of the coal workers.

#### **1.6 HYPOTHESIS**

My hypothesis is that the present laws in the country are insufficient to adequately cater for the safety and health of coal workers. The laws are present, however; they are quite broad and ambiguous. Further, there aren't any enforcement mechanisms in place to ensure that coal workers are working in a safe environment which does not pose negative threats to their health whilst working.

### **1.7 RESEARCH DESIGN, METHODOLOGY AND LIMITATIONS**

This research will be carried out by means of case studies. This will be an analysis of best practices invoked by other states and how Kenya can adopt them. Further, I will look into what experts in the field have to say about the topic

I expect to face a number of limitations;

1. Lack of enough resources to guide me with the research.
2. Lack of adequate time to carry out in-depth research.

### **1.8 CHAPTER BREAKDOWN**

1. Chapter 1 will be an introduction to the research problem and will highlight the research questions and objectives.
2. Chapter 2 will be an analysis of the legal framework governing the safety and health of coal workers in Kenya.
3. Chapter 3 will be an analysis of the best practices employed in other states in dealing with the issue of occupational safety and health of coal workers.
4. Chapter 4 will be based on the findings on chapter 2 and 3 and make recommendations on how we should design the occupational safety and health framework locally to safeguard coal workers. }
5. Chapter 5 will highlight my conclusion.

## **CHAPTER TWO: THE LEGAL FRAMEWORK ON THE OCCUPATIONAL SAFETY AND HEALTH OF COAL WORKERS IN KENYA**

In this chapter, I will delve into the legal framework that governs mining activities in Kenya. Further, I will analyze key provisions and issues that arise out of the legislation or subsidiary legislation with regards to the occupational health and safety of coal workers in particular. The legal framework generally comprises of four main sources of law:

1. The Constitution.
2. Acts of parliament.
3. Legal policies.

### **2.1 THE CONSTITUTION OF KENYA, 2010**

The Constitution of Kenya<sup>32</sup> is the *Grundnorm*<sup>33</sup> of the state and as such, ranks highest in relation to other sources of municipal law in the state.<sup>34</sup> In its preamble, the Constitution accentuates the significance of all person's well-being as all citizens ought to be committed to nurturing and protecting the well-being of the individual, the family, communities and the nation.<sup>35</sup>

It accentuates that all workers have the right to reasonable working conditions.<sup>36</sup> Further, each individual has the right to the highest attainable standard of health.<sup>37</sup> This shows the high value the constitution places on the safety and health of all workers including workers in coal mines.

Additionally, Article 66(1) of the Constitution stipulates that state has the authority to regulate land and any interests arising over land in safeguarding public safety and health. This can be interpreted to mean that the state has the power to stop the operation of a coal mine if it poses a risk to the health of the workers or it can compulsorily acquire the mine.

The Constitution has provided for a recourse mechanism a person may turn to if their right to a clean and safe working environment has been infringed or violated. It states: "If a

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<sup>32</sup> 2010.

<sup>33</sup> The ultimate norm from which every legal norm deduces its validity.

<sup>34</sup> Section 3(1), Judicature Act Kenya Chapter 8 Laws of Kenya, 2012.

<sup>35</sup> Preamble to the Constitution of Kenya, 2010.

<sup>36</sup> Article 41(2) b, Constitution of Kenya, 2010.

<sup>37</sup> Article 43(1) a, Constitution of Kenya, 2010

person alleges that a right to a clean and healthy environment recognized and protected under Article 42 has been, is being or is likely to be, denied, violated, infringed or threatened, the person may apply to a court for redress in addition to any other legal remedies that are available in respect to the same matter.”<sup>38</sup>

The Industrial Court has jurisdiction to hear matters pertaining to enforcement of occupational safety and health rights. This is pursuant to Article 162(2) of the Constitution which gives parliament the power to establish courts to hear and determine disputes relating to employment and labour relations. These courts have the same status as the high court. The court has exclusive original and appellate jurisdiction to hear and determine all disputes relating to employment and labour relations.<sup>39</sup>

## **2.2 ACTS OF PARLIAMENT**

### **2.2.1 THE OCCUPATIONAL SAFETY AND HEALTH ACT, 2007**

The Occupational Safety and Health Act<sup>40</sup> is an Act of Parliament which inter alia, has the aim of providing for the safety and health of workers in their workplaces and to provide for the establishment of the National Council to cater for issues pertaining to occupational safety and health.<sup>41</sup>

The Act outlines the duties of an employer in ensuring the safety and health of all persons working or present in his workplace<sup>42</sup>. They, inter alia, include: The provision and maintenance of safe systems, facilities and procedures of work, providing any information, training or supervision that may be required in ensuring the safety and health of all the employees, availing information on any risks that may be associated with new technologies and finally, employers have to make sure employees participate in the application and review of safety and health measures in relation to the workplace.<sup>43</sup>

Further, as a precautionary measure, the Act stipulates that risk assessments on the safety and health of employees have to be carried out by the employer, and after the results are examined, the employer has to come up with measures that will ensure that all equipment and

<sup>38</sup> Article 70(1), Constitution of Kenya, 2010.

<sup>39</sup> Section 12, Industrial Court Act (Act No. 20 of 2011).

<sup>40</sup> 2007

<sup>41</sup> Preamble to the Occupational Safety and Health Act, (Act No. 15 2007).

<sup>42</sup> Section 6(1), Occupational Safety and Health Act, (Act No. 15 2007).

<sup>43</sup> Section 6(2), Occupational Safety and Health Act, (Act No. 15 2007).

tools used in the workplace are safe and do not pose any risks to the safety and health of employees.<sup>44</sup>

The duties provided for by the Act are twofold as employees also have a duty to ensure that their personal safety and health, as outlined in Section 13, is protected. In doing so, they have to ensure the following: That they have worn protective clothing on their person as they work, they have to fully comply with safety and health procedures and instructions provided to them and they have to report promptly to their supervisor any situation that they have sufficient reason to believe will pose a danger to their safety and health.<sup>45</sup>

In spite of the express provisions provided for by the law on the obligation employees have in safeguarding their own safety and health it has proved difficult for employees in mines, especially those in developing countries such as ours to adhere to these obligations. This is because, in spite of having the express right to remove themselves from any situations that may pose a risk to them; employees face another risk, that of losing their jobs as a result of doing so.<sup>46</sup> For instance, on 5<sup>th</sup> May 2007, a Company dismissed 28 workers as a result of striking because of poor working conditions. Fortunately, the Kenya Plantation Union with the backing of the Minister of Labor at the time, fought for the reinstatement of the workers.<sup>47</sup> Similarly, coal mine workers may not be inclined to leave the mines even if the working conditions do pose a danger to their welfare as they would not want to lose their source of income.

Another example was seen in *Kenya Quarry and Mines Union v Kenya Calcium Products Ltd*<sup>48</sup>, where legal counsel for these mining corporations took advantage of the ignorance of the employees in the mines. In this case, the grievants incited the other employees to go on strike. However, their failure to follow the laid upon grievance mechanism in their collective agreement resulted in their summary dismissal.

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<sup>44</sup> Section 6(2), Occupational Safety and Health Act, (Act No. 15 2007).

<sup>45</sup> Section 6(2), Occupational Safety and Health Act, (Act No. 15 2007).

<sup>46</sup> Available at: <http://www.state.gov/g/drl/rls/hrrpt/2010/af/154352.html>, Accessed on 29 December 2015.

<sup>47</sup> Available at: <http://www.unhcr.org/refworld/country,,ITUC,,KEN,456d621e2,4c52ca26c,0.html>, Accessed on 29 December 2015.

<sup>48</sup> The Industrial Court, Cause No. 68 of 1988.

The Act has faced a major problem, that is, its implementation. Kenya has a population of 38.6 million people.<sup>49</sup> Of these, 2 million work in the formal sector and 8.8 million work in the informal sector.<sup>50</sup> There are about 140,000 workstations situated throughout the country and the Directorate of Occupational Safety and Health Services, with 71 professional occupational safety and health officers, is not capable of effectively inspecting the workstations leaving many workers exposed to occupational safety and health hazards without intervention.<sup>51</sup> Further, the representation of the Directorate in 29 counties leaves the remaining 18 counties without any officers.<sup>52</sup>

Further, in rural areas, literacy levels are very low and as seen, are insufficiently covered by the Directorate. This leaves most, if not all of these workers ignorant to the minimum requirements of safety and health set by the government. Most, therefore end up working in unsafe conditions and are left exposed to occupational safety and health hazards.<sup>53</sup> From the above, we can clearly see that the Directorate is unable to effectively cater for workers in coal mines as it lacks the necessary capacity to do so.

Therefore, there is need for the office of the Directorate to introduce new specialized institutions which will cut across all ministries and carry out the work of inspection of various workplaces that fall within the ministries.

### **2.2.2 THE WORK INJURY BENEFITS ACT, 2007**

The Work Injury Benefits Act is an Act of Parliament which was drafted with the purpose of compensating employees who were injured at work and contracted diseases connected with their employment.<sup>54</sup>

It defines an employee as a person working under a contract of service.<sup>55</sup> Workers in coal mines fall under this definition and are therefore the Act is applicable to them. It stipulates the right of an employee to compensation as a result of an accident which has led to the disablement or death of the employee.<sup>56</sup>

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<sup>49</sup> Kenya Population Data sheet, 2011( These are the figures tabulated after the 2009 census)

<sup>50</sup> National Profile on Occupational Safety and Health – Kenya.

<sup>51</sup> National Profile on Occupational Safety and Health – Kenya.

<sup>52</sup> National Profile on Occupational Safety and Health – Kenya.

<sup>53</sup> National Profile on Occupational Safety and Health – Kenya.

<sup>54</sup> Preamble to the Work Injury Benefits Act, 2007.

<sup>55</sup> Section 5(1), Work Injury Benefits Act, 2007.

<sup>56</sup> Section 10(1), Work Injury Benefits Act, 2007.

The Act makes it illegal for an employer to solicit contributions from employees towards cost of medical aid.<sup>57</sup> It is considered as an offence and the Director of Occupational Safety and Health Services has the authority to issue any orders compelling the employer to pay back any amounts that may have been taken.<sup>58</sup>

The Act, however, has failed to provide adequate compensation for persons, such as coal workers who may be injured permanently as a result of explosions and other accidents that may paralyze them unable to work again. Chapter four will expound on this issue.

### **2.2.3 EXPLOSIVES ACT**

This Act governs the use of explosives within Kenya. As we have seen in chapter one, coal mining requires the use of explosives. These explosives however, can result in the caving in of the mine killing those inside or trapping them. The Act therefore makes it mandatory for mine operators to acquire a permit in order to acquire blasting materials.<sup>59</sup>

It is a crime for a coal mine operator to use blasting materials without a permit and is punishable by either a three thousand shillings fine or a one year prison sentence, or both.<sup>60</sup> Considering the dangers that are associated with blasting materials, the fine stipulated by the Act is very little and may not be adequate enough to deter coal mine operator from using explosives without a permit.

### **2.3 LEGAL POLICIES**

#### **THE NATIONAL MINERALS AND MINING POLICY (FINAL DRAFT) OF 2010**

The policy was developed with the goal of coming up with an all-encompassing framework for managing Kenya's mineral resources.

Strategies to be employed in the policy include ensuring a socially acceptable balance between the impacts, both positive and negative of mining on the physical and human environment; ensuring that compliance of activities in the mineral sector are in line with the relevant health and safety legislation; promoting best mining practices to ensure that mine

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<sup>57</sup> Section 50(1), Work Injury Benefits Act, 2007.

<sup>58</sup> Section 50(2), Work Injury Benefits Act, 2007.

<sup>59</sup> Section 9, Explosives Act, 2012 (cap 115 laws of Kenya).

<sup>60</sup> Section 12, Explosives Act, 2012 (cap 115 laws of Kenya).

closure plans and post-mining phases from integral part of planning stage; develop in liaison with relevant institutions specific regulation for mining operations in environmentally sensitive areas such as forests reserves, nature reserves and national parks.

In as much as there are quite a number of laws governing mining in Kenya, very little has been done, or proposed to be done to ensure that the safety and health of coal workers is protected. This leaves those working in mines susceptible to health hazards and other unsafe practises associated with mining. The laws have proved to be inadequate in ensuring the health and safety of those in mines. This is why the legislature needs to go back to the drawing board and come up with a policy and legal framework that addresses the health and safety of coal workers. This will help seal the loophole in the mining laws and avert future tragedies in the sector.

In the next chapter, I will undertake a comparative analysis of other states which have been successful in tackling the issue of occupation health and safety of their coal workers and how we can emulate them.

### **CHAPTER 3: CASE STUDIES**

The right to safe and healthy working conditions is part of the broader right of everyone to the enjoyment of just and favorable conditions of work, enshrined inter alia in article 23 of the Universal Declaration of Human Rights and article 7 of the International Covenant on Economic, Social and Cultural Rights.<sup>61</sup> The Universal Declaration of Human Rights provides that everyone is entitled to the right to work, to free choice of employment, to just and favorable conditions of work and to protection against unemployment.<sup>62</sup>

The International Covenant on Economic, Social and Cultural Rights<sup>63</sup> further reiterates the right to safe and healthy working conditions. It stipulates that all State parties to the Covenant will recognize the right of everyone to the enjoyment of just and favorable conditions of work which will ensure safe and healthy working conditions.<sup>64</sup> In the preamble to the International Covenant on Civil and Political Rights, the parties to that covenant outline the obligation of all States to recognize in accordance with the Universal Declaration of Human Rights, the ideal of free human beings enjoying civil and political freedom and freedom from fear and want can only be achieved if conditions are created whereby everyone may enjoy his civil and political rights, as well as his economic, social and cultural rights.

The above conventions show the importance the international community has accorded to the right of all persons to safe and healthy working conditions. With that in mind, this chapter will look into the best practices employed by other states in grappling with the issue of occupation health and safety of coal workers. I will examine two jurisdictions namely; Australia and South Africa.

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<sup>61</sup> Stefano Sensi, "The Adverse Effects of the Movement and Dumping of Toxic and Dangerous Products and Wastes on the Enjoyment of Human Rights." A paper presented at a High Level Expert Meeting on the New Future of Human Rights and Environment: Moving the Global Agenda Forward, held at Nairobi, November 30-December 1, 2009.

<sup>62</sup> Article 23, Universal Declaration of Human Rights, 1948.

<sup>63</sup> International Covenant on Economic, Social and Cultural Rights, 1966.

<sup>64</sup> Article 7, International Covenant on Economic, Social and Cultural Rights, 1966.

### **3.1 AUSTRALIA**

Australia has one of the most progressive occupation health and safety legislation in the world. It is based on the principles of risk management, worker participation and the duty of care and place the onus on providing safe workplaces on the operator of the mine site. Government inspectors act as both enforcers of regulations and mentors who encourage good health and safety performance. Further, enforcement protocols are generally risk-based, with action being defined by both the level and immediacy of the risk.

In Australia, each state has come up with its own legal framework which incorporates different regulations that promote the development of management systems. However, there has been harmonization of mining laws between the Australian states. These laws have been developed so as to be in line with the occupational health and safety laws in.<sup>65</sup> I will base my case study on the New South Wales mining legislations namely; The Work Health and Safety (Mines) Act<sup>66</sup> and the Work Health and Safety (Mines) Regulations.<sup>67</sup> These legislations replaced the Coal Mine Health and Safety Act, 2002 and the Mine Health and Safety Act, 2004.

The Act has the following objectives:<sup>68</sup> To promote the health and safety of persons at work at mines or related places, to protect mine workers from harm to their health and safety through the elimination of risks in the workplace; to ensure that there are provisions pertaining to emergencies in mines; to come up with a method of ascertaining that persons carrying out various functions in mines are competent, to establish the a council which will oversee all mining related activities and to make a provision for worker safety and health representatives in mines.

Part 5 of the Act provides for the requirement of safety and health representatives in every coal mine.<sup>69</sup> These representatives have the obligation to review and implement safety management systems which are required to be present in mines, to investigate any incidents or occurrences in the mines and to help train site and electrical safety and health

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<sup>65</sup> Work Health Safety (Mines) Legislation Factsheet.

<sup>66</sup> The Work Health and Safety (Mines) Act, 2013. (New South Wales)

<sup>67</sup> The Work Health and Safety (Mines) Regulations, 2014. (New South Wales)

<sup>68</sup> Section 3, The Work Health and Safety (Mines) Act, 2013.(New South Wales)

<sup>69</sup> Section 28, The Work Health and Safety (Mines) Act, 2013.(New South Wales)

representatives.<sup>70</sup> Further, the representative can give directions to the operator of the mine to suspend operations if he feels that the mine has failed to comply with the occupational health and safety standards thus posing a danger to the employees.<sup>71</sup> Failure of the operator to comply with the directions of the representative will result in fine of \$10,000 payable if the operator is an individual and \$50,000 payable if the operator is a body corporate.<sup>72</sup>

Further, the act provides for the appointment of mine safety and health representatives.<sup>73</sup> These, in contrast to the industry safety and health representatives, have a more specific role as they are experts in a specific line of work. For instance, where electrical installations are required in the coal mine, an electrical safety and health representative would be the one to carry out the job and not a health safety and health representative.<sup>74</sup>

The Act establishes the Mine Safety Advisory Council.<sup>75</sup> This council, inter alia, has the duty of advising the Minister on any policies that may be required in relation to the health and safety of workers in mines tasked with providing advice to the Minister on any policy matter relating to work health and safety in mines.<sup>76</sup> Further, the Act establishes a Competence board which oversees the development of standards of competence for persons working in mines in relation to their health and safety.<sup>77</sup> The board also carries out due diligence on the competence of persons exercising functions in a mine<sup>78</sup> and where it deems fit, it has the duty to advise the Minister on matters related to the competence required of persons to exercise any function in a mine.<sup>79</sup>

In order to exercise its functions effectively, the board may develop competence standards or cause competence standards to be developed where there is need to do so.<sup>80</sup> Finally, it is

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<sup>70</sup> Section 29(2), The Work Health and Safety (Mines) Act, 2013.(New South Wales)

<sup>71</sup> Section 30, The Work Health and Safety (Mines) Act, 2013.(New South Wales)

<sup>72</sup> Section 30(3), The Work Health and Safety (Mines) Act, 2013.(New South Wales)

<sup>73</sup> Division 3, The Work Health and Safety (Mines) Act, 2013.(New South Wales)

<sup>74</sup> Section 42(2), The Work Health and Safety (Mines) Act, 2013.(New South Wales)

<sup>75</sup> Section 60, The Work Health and Safety (Mines) Act, 2013.(New South Wales)

<sup>76</sup> Section 61, The Work Health and Safety (Mines) Act, 2013.(New South Wales)

<sup>77</sup> Section 67(1)a, The Work Health and Safety (Mines) Act, 2013.(New South Wales)

<sup>78</sup> Section 67(1)b, The Work Health and Safety (Mines) Act, 2013.(New South Wales)

<sup>79</sup> Section 67(1)c, The Work Health and Safety (Mines) Act, 2013.(New South Wales)

<sup>80</sup> Section 67(3)b, The Work Health and Safety (Mines) Act, 2013.(New South Wales)

mandatory that the board provides an annual report to the minister, highlighting its activities during the preceding year.<sup>81</sup>

In order to ensure that the objectives in the Act are met, the Act also establishes the position of a regulator who advises the minister and makes recommendations pertaining to the running and effectiveness of the work health and safety laws.<sup>82</sup> The New South Wales department of industry acts as the regulator. The department takes advice from competence board on how to carry out its functions under the Act. In coal mines, their function is important as they determine the requirements for certificates of competence and conduction of examinations, and the issuing of certificates of competence and practicing certificates.<sup>83</sup>

Under the regulations, mine operators must develop and implement a safety management system as a means of ensuring that the safety and health of workers and that of others present in the mines is not jeopardized as a result of mining operations.<sup>84</sup>

A safety management system for a mine is the principal means of ensuring that a mine operates smoothly and safely.<sup>85</sup> It harnesses various policies and procedures which provide a systematic approach to be followed by the mine operator in order to achieve and monitor effective levels of health and safety. This system has to be documented, should be clear and comprehensible and should be made accessible to all persons who may want to access it.<sup>86</sup>

In most cases the safety management system will include specific strategies for hazards and risks at the mine such as mining hazard management strategies and controls strategies for matters such as emergencies, electricity, health, explosives, plant and other mechanical risks.

The purpose of the safety management system is to set out in a structured and organized manner, various aspects of operations in the mines that affect the safety of workers and any other persons in the mine.<sup>87</sup> Usually, a safety management system will document the following: A safety policy outlining how the operator intends to manage safety outcomes,

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<sup>81</sup> Section 68, The Work Health and Safety (Mines) Act, 2013.(New South Wales)

<sup>82</sup> Section 74, The Work Health and Safety (Mines) Act, 2013.(New South Wales)

<sup>83</sup> Mining Competence Board Strategic Plan to 2020, Published by NSW Department of Industry, Skills and Regional Development, First published 14 December 2015.

<sup>84</sup> Clause 13, Work Health and Safety (Mines) Regulations, 2014. (New South Wales)

<sup>85</sup> NSW code of practice: safety management systems in mines.

<sup>86</sup> NSW code of practice: safety management systems in mines.

<sup>87</sup> Work Health and Safety Regulations 2012 (SA) 'A guide to Chapter 10 – Mines'.

how he/she will implement safe work procedures in the mines, how the mine will be managed and how resources will be allocated to handle safety matters, any consultation arrangements with workers and the coordination of activities of other persons who may be in the mine and finally, it outlines procedural issues such as the monitoring of health, incidents reporting, filing of records and maintenance procedures for the system.<sup>88</sup>

If a mine operator fails to come up with the system, he liable to pay penalties. Where the operator is an individual, he/she will be liable to pay a fine amounting to \$6,000 and where the operator is a company, it will be liable to a fine of \$30,000.<sup>89</sup>

The regulations also provide a requirement for mine operators to come up with emergency plans to cater for the mines. Failure to do so will attract penalties worth \$6,000 for individuals and penalties worth \$30,000 in the case of body corporates.<sup>90</sup> Normally, an emergency plan addresses the various response mechanisms in the case of an emergency and outlines probable triggers of the emergency plan.<sup>91</sup> In coming up with the emergency plan, operators take special account of the nature of the operations, how complex the operations are and the possible risks that may arise as a result of the operations.<sup>92</sup>

The Act has yielded positive results in the state. Between 1<sup>st</sup> July 2013 and 30<sup>th</sup> June 2014, 16 mine workers died at work in mines in Australia. Out of this, only 3 of the fatalities occurred in coal mines in New South Wales. Life is sacred, and I wouldn't want to belittle it. However, this are very good results as compared to other countries with over hundreds of deaths in their mines.<sup>93</sup>

Further, The District Court of New South Wales now has jurisdiction to hear and determine all claims pertaining to the compensation of coal workers. In respect of compensation purposes, coal workers are treated differently as they retain certain rights to compensation which other workers do not. These, inter alia, include the entitlement to redeem lump sum

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<sup>88</sup> Work Health and Safety Regulations 2012 (SA) 'A guide to Chapter 10 – Mines'.

<sup>89</sup> Clause 13, Work Health and Safety (Mines) Regulations, 2014. (New South Wales)

<sup>90</sup> Clause 88, Work Health and Safety (Mines) Regulations, 2014. (New South Wales)

<sup>91</sup> Clause 88, Work Health and Safety (Mines) Regulations, 2014. (New South Wales)

<sup>92</sup> Clause 88(3), Work Health and Safety (Mines) Regulations, 2014. (New South Wales)

<sup>93</sup> Available at: <http://www.mineaccidents.com.au/mine-events/disaster/au>, Accessed on 15 December 2015.

payments as compensation and the entitlement to the deemed total incapacity provision under the Workers Compensation Act.<sup>94</sup>

### 3.2 SOUTH AFRICA

South Africa has suffered numerous fatalities in its mining sector. This is in spite of mining being one of the cardinal economic activities in South Africa. In 2009, mining contributed about 18.8% of the gross domestic product and created about one million jobs in the country.<sup>95</sup> Further, it is a third world country and we can be able to relate with the state better. In the late 19<sup>th</sup> century, miners faced In the 1880s, miners were exposed to multiple risks to their safety and health as mining had just increased to a more industrial scale. The safety of mines has since improved in the country. The South African commission of inquiry into mine safety and health, in 1995, after carrying out studies concluded that dust exposure in mines had stagnated for 50 years.<sup>96</sup>

The International Labor Organization undertook a survey of the number of fatalities related to work in South Africa. From the survey, they found that in 2001, close to 2,000 workers died as a result to work related accidents. From these, 288 died in mines.<sup>97</sup> Given that miners account for less than 4% of the total workforce in the country, approximately 15% of work-related fatalities are associated with mining.<sup>98</sup>

In response to fatalities in mines, the Mining legislation in South Africa had to be developed. In 1972, the report of a commission of inquiry into health and safety at work in Britain,<sup>99</sup> chaired by Lord Roben, laid the foundation of more comprehensive and systematic health and safety approaches. Lord Roben criticized the bias in the law in regard to safety and health as the law lacked provisions to address the same.

He called for expansion of occupation health and safety to take into account human factors associated with work, the interactions between employers and employees in matters of health and safety and the employer's duty in the management of occupational health and safety in

<sup>94</sup> Available at: [http://www.judcom.nsw.gov.au/publications/benchbks/civil/mining\\_list.html](http://www.judcom.nsw.gov.au/publications/benchbks/civil/mining_list.html), Accessed on 15 December 2015.

<sup>95</sup> 'Mining and minerals in South Africa', available at: <http://www.southafrica.info/business/economy/sectors/mining.html>, accessed on 15 December 2015.

<sup>96</sup> 'Commission of Inquiry into Safety and Health in the Mining Industry', 1995, 54–55.

<sup>97</sup> Source: Department of Minerals and Energy, Mine Inspectorate.

<sup>98</sup> Source: Department of Minerals and Energy, Mine Inspectorate.

<sup>99</sup> 'The Roben's Report', 1972.

his workplace. Further, he proposed that prescriptive legal provisions be replaced by performance or outcomes requirements, which were to be supported by a general duty of care placed on employers.<sup>100</sup>

As a result of this, in 1995, the South African commission of inquiry into safety and health in the mining industry, came up with a report recommending the promulgation of legislation to address occupational health and safety in mines, and to ensure that operators in mines take immediate steps in improving the standards of practice in the workplace and controlling health hazards.<sup>101</sup>

The Mine Health and Safety Act and regulations of 1996, arose out of the commission's findings and had the aim of ensuring that the health and safety of employees and other persons at mines are protected.<sup>102</sup> These two legislations govern the occupational safety and health of workers in coal mines in South Africa.

The Act stipulates that Employers bear primary responsibility to ensure that there is a safe work environment. This means that they have to ensure that mines are designed and constructed in such a manner that will provide a safe and healthy working environment.<sup>103</sup> Further, employers are required to ensure they keep and maintain an annual health report, for which, if the employer is a body corporate with at least 50 employees then he/she shall publish and distribute it to the shareholders.<sup>104</sup>

Employers are obligated to provide safety and health equipment to the employees.<sup>105</sup> They should also ensure that the facilities are upheld in hygienic conditions. The employer should also provide sufficient protective equipment for the employees and make sure that the employees are aware of the proper use and maintenance of the equipment.<sup>106</sup>

Additionally, Pursuant to section 8, the employer is mandated to establish a policy pertaining to health and safety which will outlines the organisation of work, the protection of both and

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<sup>100</sup> GUNNINGHAM, N. and JOHNSTONE, J, 'Regulating Workplace Safety. Systems and Sanctions', Oxford University Press. 1999, 344–346.

<sup>101</sup> 'Commission of Inquiry into Safety and Health in the Mining Industry report', 1995, 160.

<sup>102</sup> Preamble, Mine Health and Safety Act, No.29 of 1996 (As amended in 2008) South Africa.

<sup>103</sup> Section 2, Mine health and Safety Act, No. 29 of 1996 (As amended in 2008) South Africa.

<sup>104</sup> Section 2, Mine health and Safety Act, No. 29 of 1996 (As amended in 2008) South Africa.

<sup>105</sup> Section 6, Mine Health and Safety Act, no.29 of 1996(As amended in 2008) South Africa.

<sup>106</sup> Section 6, Mine Health and Safety Act, no.29 of 1996(As amended in 2008) South Africa.

non-employees who may be affected by the mining operations. Under clause 3, the employer has an obligation to publicly display the copy of the policy and must also generate copies for the representatives in the mines. This helps in keeping the employer on toes and also helps in ensuring the employees are informed of their rights relating to their health and safety.

Interestingly, the employer may prepare a Code of Practice relating to the health and safety of employees and may submit it to the Chief Inspector of Mines if and when required.<sup>107</sup>

The Act stipulates that workers have right to participate in health and safety training. The onus to provide for this training is placed on the employer.<sup>108</sup> Training involves provides employees with any information that may be required to undertake their duties without endangering themselves. This makes employees become familiar with occupational hazards posed by the mining environment and steps they can individually take to curb such risks. This training is free and therefore no employee is required to pay up any sum for it.<sup>109</sup>

Training is carried out in different occasions. These include: Before employees commence with the work, on intervals that may seem fit to the employer, before making substantial changes to mining equipment and before changes are made in relation to the employees' work.<sup>110</sup> Further records of all trainings must be kept by the employer.

The employer is also required to acquire the services, whether part time or full time, of an expert in the field of occupational hygiene techniques who will have the duty of taking an account of the hazards present in the mine and file records of the same.<sup>111</sup> Subsequently the employer shall come up with a medical surveillance system of employees exposed to health hazards on requirement by law to do so or in response to an assessment conducted by him.<sup>112</sup> The surveillance is appropriate considering the hazards. Further, the employer must acquire the services of a medical practitioner where necessary.<sup>113</sup> This ensures that all possible health risks are countered appropriately and timely.

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<sup>107</sup> Section 9, Mine Health and Safety Act, no.29 of 1996(As amended in 2008) South Africa

<sup>108</sup> Section 10, Mine health and Safety Act, Act 29 of 1996(As amended in 2008) South Africa.

<sup>109</sup> Section 24, Mine health and Safety Act, Act 29 of 1996(As amended in 2008) South Africa.

<sup>110</sup> Section 10(3), Mine health and Safety Act, Act 29 of 1996(As amended in 2008) South Africa.

<sup>111</sup>Section 12, Mine health and Safety Act, Act 29 of 1996(As amended in 2008) South Africa.

<sup>112</sup> Section 13, Mine health and Safety Act, Act 29 of 1996(As amended in 2008) South Africa.

<sup>113</sup> Section 13, Mine health and Safety Act, Act 29 of 1996(As amended in 2008) South Africa.

The Act also stipulates that approaches on risk management addressing health and safety hazards a must. This is made possible by: Identifying the risks and hazards employees are exposed to while at work, assessing the risks, making a record of significant hazards and availing the records to the employees.<sup>114</sup> A periodic review of records has to be undertaken by the employer in order to determine whether further control or elimination of risk is possible in future.<sup>115</sup>

The Principal Inspector of Mines has to be informed on any incident or occurrence resulting in injury or death of a person in a mine in order for him to instruct an inspector in carry out a parallel investigation of the incident with the employer.<sup>116</sup>

The Act establishes the Mine Health and Safety Council.<sup>117</sup> It is a tripartite entity comprising of the state, the employer and labour members under the direction of the chief inspector of mines. The council has the task of advising the Minister on any legislations and research outcomes which are targeted at promoting the health and safety in the mines. Further, it oversees all the activities of its sub committees, holds a summit after every two years in which a review of the state of occupational health and safety in mines is undertaken.

The number of injuries and deaths in coal mines has significantly dropped in South Africa. For instance, in 2014, the number of fatalities in all mines was 84 being the lowest number ever recorded in the country. Of these, seven of the fatalities occurred in coal mines. This was a 93% improvement in the safety of coal mines between 1993 and 2013, as fatalities have reduced from 90 to seven fatalities<sup>118</sup> further, cases of noise induced hearing loss have reduced from about 6,000 case recorded in 2003 to about 1,200 cases which were recorded at the end of 2013.<sup>119</sup>

At the 2014 mine health and safety summit, the Mine Health and Safety council said it would launch a Centre of excellence in April. This Centre is aimed at spearheading the promotion innovation by means of training and research carried out by mine workers. "We need to

<sup>114</sup> Section 11(1), Mine health and Safety Act, Act 29 of 1996(As amended in 2008) South Africa.

<sup>115</sup> Section 11(4), Mine health and Safety Act, Act 29 of 1996(As amended in 2008) South Africa.

<sup>116</sup> Section 11(5) b, Mine health and Safety Act, Act 29 of 1996(As amended in 2008) South Africa.

<sup>117</sup> Section 42, Mine health and Safety Act, Act 29 of 1996(As amended in 2008) South Africa.

<sup>118</sup> Available at: [http://www.southafrica.info/news/business/mine-deaths-27115.htm#.Vk9\\_mfkrK03#ixzz3sZi08GAL](http://www.southafrica.info/news/business/mine-deaths-27115.htm#.Vk9_mfkrK03#ixzz3sZi08GAL), last accessed on 10 January, 2016.

<sup>119</sup> Available at: [http://www.southafrica.info/news/business/mine-deaths-27115.htm#.Vk9\\_mfkrK03#ixzz3sZi08GAL](http://www.southafrica.info/news/business/mine-deaths-27115.htm#.Vk9_mfkrK03#ixzz3sZi08GAL), last accessed on 10 January, 2016.

reclaim our space as a country that leads in mining innovation and excellence," stated Mike Teke, president of the Chamber of Mines.<sup>120</sup>

As we have seen, in the late 19th century when mining increased to a larger scale in South Africa, mine workers faced very high levels of risk both to their safety and health. However, as we have seen, with the introduction of laws such as the Mine Health and Safety Act and regulations; the safety performance of mines has shown great improvements and is definitely a step in the right direction.

From the two case studies we have looked into, we can see the positive impacts mining legislations specific to the health and safety of workers in mines have had in those states. We too, need to take a leave from these states and come up with similar coal mining legislation that will adequately cater for the persons who will be working in the coal mines in Mui basin.

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<sup>120</sup> Available at: [http://www.southafrica.info/news/business/mine-deaths-27115.htm#.Vk9\\_mfkrK03#ixzz3sZi08GAL](http://www.southafrica.info/news/business/mine-deaths-27115.htm#.Vk9_mfkrK03#ixzz3sZi08GAL), last accessed on 10 January, 2016.

## CHAPTER FOUR: DATA ANALYSIS

In the preceding chapters we have been able to discuss legal framework governing the occupational safety and health of coal workers in Kenya and in other jurisdictions. In the previous chapter, in particular, has been able to highlight the best practices of other states in relation to the safety and health of their coal workers. This chapter will focus key aspects of the safety and health legislations of both South Africa and New Zealand which we can adopt as a nation.

The first aspect is that of safety representatives in mines and their training. In accordance with the Mine Health and Safety Act<sup>121</sup>, mines are required to have health and safety committees, and safety representatives chosen by the workers. It also provides for the training, rights and obligations of the representatives. This is similar to the Occupational Safety and Health Act which stipulates the same.<sup>122</sup> The training provided by the Mine Health and Safety Act (South Africa) is threefold. Firstly, workers should be trained to execute particular operations in means that not only ensure the protection of the worker alone but also preventing risks that may affect others in the mines.<sup>123</sup> Secondly, training on commencement of the project and periodic trainings should be designed for all ranks of mine officials, taking into account the various risks to the health and safety of the persons posed in the mine.<sup>124</sup> Thirdly, adult education or ABET which is a primary contributor to the intervention and minimization of health and safety risks in mines.<sup>125</sup> Studies, however, have shown that neither the representatives themselves, nor the workers themselves, are fully aware of all these roles, functions and responsibilities.<sup>126</sup>

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<sup>121</sup> South Africa

<sup>122</sup> Section 9, Occupational Safety and Health Act, 2007.

<sup>123</sup> Gwyneth Tuchten, 'Concept development for facilitating the health and safety efficacy of South African mine workers' 2011.

<sup>124</sup> Gwyneth Tuchten, 'Concept development for facilitating the health and safety efficacy of South African mine workers'.

<sup>125</sup> Gwyneth Tuchten, 'Concept development for facilitating the health and safety efficacy of South African mine workers'.

<sup>126</sup> Rees D, Ingham F, Bello B, Murray J, 'Awareness for persons affected by mining operations in South Africa'.

More so, in spite of legislation expressly providing for the requirement of undertaking training, there aren't any regulations or institutions in place to ensure that they are indeed carried out. The only thing made available is literature, which is of a technical nature discussing the use of specific equipment for health and safety, but there is very little, if any, information about training approaches and techniques. After various studies were carried out on the development of mining, some researchers came to the conclusion that historically, a fallacy existed claiming that lack training did not in itself cause accidents or fatalities in mines.<sup>127</sup> Further, mining companies are considered reluctant to share information that can impact on their place in the market.<sup>128</sup> These reasons, inter alia, give us a hint as to why mining companies over the years have been reluctant in training the representatives.

Walters and Frick<sup>129</sup> noted that the features promoting effectiveness of occupational health and safety in workplaces included:

- a. Adequate training of persons in the workplace.
- b. Interaction opportunities between employers and workers.
- c. Mechanisms of channeling problems in the workplace and changes being made on the same.

They maintain that the higher this criterion is met in workplaces, the better the rates of detection and reduction of work hazards therein will be. However, this cannot be realized without the commitment of the management. Management commitment in improving the health and safety is important because it supports participative arrangements for health and safety and ensures efficiency and quality of production.

Walters and Gourlay stated the following:

*“. . . whatever the level of development of trade union organization and worker representation on health and safety, it can never be a substitute for management organization for health and safety. Without effective management systems for health and*

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<sup>127</sup>R.C.W. Webber-Youngman, and E.A. van Wyk, 'Incident reconstruction simulations-potential impact on the prevention of future mine incidents', 2013.

<sup>128</sup> Dr. Philip Frankel, "Falling Ground", 2010.

<sup>129</sup> 2000

*safety and a commitment to its continued prioritization, the role of worker involvement is severely constrained”.*<sup>130</sup>

Representatives therefore ought to enjoy the following rights so as to effectively carry out their duties:<sup>131</sup> Protection from any discrimination as a result of their representative role, paid time off to enable them to carry out their functions, paid time off in order to receive training; the right to information made available by the employer on current and future hazards to the health and safety of workers at the workplace, the right to inspect the workplace and any complaints from workers on issues of health and safety; the right to be consulted by the employer on all issues pertaining to his role and finally, the right to accompany health and safety authority inspectors when they inspect the workplace and to make complaints to them when necessary.

The second aspect is that of The Tripartite Mine Health and Safety Council which is also established by the Mine Health and Safety Act, and consists of members representing the State, employees and employers in the mining industry. This is also the case in New South Wales which has a Mine Safety Advisory Council. The council has the task of advising the Minister on any legislations and research outcomes which are targeted at promoting the health and safety in the mines. The Chief Inspector of Mines is the chairman of both the mine health and safety council and the mining qualifications authority. The authority handles matters pertaining to the education and training needs in the mining sector.

In Kenya, the Occupational Safety and Health Act establishes the National Council for Occupational Safety and Health. The duties of this council,<sup>132</sup> inter alia include; advising the Minister on occupational safety and health policies to be adopted, formulating statutory proposals specific to occupational safety and health and promoting best practices regarding occupational safety and health.<sup>133</sup> The interpretation section of the Act however defines the term ‘minister’ as the minister of labour<sup>134</sup> or now referred to as the cabinet secretary in

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<sup>130</sup> Walters, D. R. and Gourlay, S, 'Statutory Employee Involvement in Health and Safety at the Workplace: A Report of the Implementation and Effectiveness of the Safety Representatives and Safety Committees Regulations 1977', 1990, 130.

<sup>131</sup> International Labor Organization, Occupational Safety and Health Convention, No. 155 of 1981.

<sup>132</sup> Section 27, Occupational Safety and Health Act, (Act No. 15 2007).

<sup>133</sup> Section 27 (1), Occupational Safety and Health Act, (Act No. 15 2007).

<sup>134</sup> Section 2, Occupational Safety and Health Act, (Act No. 15 2007).

charge of the ministry of labour, social security and services. As an imperfect man, it is inconceivable that cabinet secretary can be able to sufficiently cater for all industries that require labour force in the country. Therefore, it would be prudent to follow South Africa and New South Wales example and come up with a council specifically in charge of the safety and health in mines. This council should be answerable to the cabinet secretary in charge of mining who is competent to handle the matter as it falls within his docket. It will also ensure that actual training of representatives is undertaken.

As was also expounded in the case study of New South Wales, the mining council will also ensure that safety management systems are present in mines. These systems are vital as they are the primary means of ensuring the safe operation of a mine.<sup>135</sup> They will also ensure that the system is documented. Further, the council through its representatives will ensure that the system is understandable and easily accessible to those who might want to read it.

Mwangi Rwenji, a mining engineer in Kenya, stated<sup>136</sup> that safety management systems are important as they introduce a standardized way of handling safety that eliminates the aspect of having to train, re-train and train again employees as the whole system becomes like a continuous training approach while at the same time meeting the objective of safety management. From this, we can see the vital role safety management systems will play in coal mines in Kenya.

The final aspect we will discuss is that of compensation. The Work Injury Benefits Act provides that an employee is entitled to periodical payments equivalent to the employee's earnings for suffering temporary total disablement due to an accident that incapacitating the employee for three days or more.<sup>137</sup> This compensation, however, is limited to a period not exceeding twelve months.<sup>138</sup> On average, workers in Kenyan mines (inclusive of coal workers) earn about Ksh. 81,030 per annum.<sup>139</sup> Assuming the worker is temporarily disabled, he is only entitled to Ksh. 81,030 which will be paid through the course of the following year. From then, he isn't entitled to any other payments from then. In New South Wales,

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<sup>135</sup> NSW code of practice: safety management systems in mines.

<sup>136</sup> In an interview.

<sup>137</sup> Section 28(1), Work Injury Benefits Act, 2007.

<sup>138</sup> Section 28(3), Work Injury Benefits Act, 2007.

<sup>139</sup> Available at: <http://www.africapay.org/kenya/home/salary/minimum-wages>, last accessed on 10 January, 2016.

there are two methods of paying compensation. The first is periodic payments to the worker at the rate of his current weekly wage for the first 26 weeks, and after 26 weeks, weekly payments up to a maximum payment of Ksh. 42,697 per week, depending on the extent of the disability. The second are indexed weekly payments made to a surviving dependent spouse, payable at Ksh. 24,918 per week, which continues until re-marriage or the commencement of a de facto relationship or until the death of the spouse.<sup>140</sup>

Considering the delicate situation of the coal mining environment, a lot needs to be done to ensure the health and safety of the workers. There is need to establish strong institutional, legal and policy frameworks. From the above case studies, I would make the following recommendations:

1. Kenya should enact an Act to deal extensively with occupational safety and health of coal mine workers.
2. There should be a revision of the compensation amounts provided for by the Work Injury Benefits Act.
3. Kenya should also establish resilient institutions whose mandate is the regulation of the safety and health of mine workers.
4. There should be guidelines and directions encompassing duties of employers and employees in mining.
5. There should be a mining policy guiding on the protection of mine workers from possible safety and health hazards in their work area.
6. It should also be expressly provided in law for the provision of medical services in coal mines and even better a clinic to cater for the workers.

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<sup>140</sup> Available at:

[http://www.judcom.nsw.gov.au/publications/benchbks/civil/personal\\_injuries\\_legal\\_framework.html](http://www.judcom.nsw.gov.au/publications/benchbks/civil/personal_injuries_legal_framework.html), last accessed on 10 January 2016.

## **CHAPTER FIVE: CONCLUSION**

### **5.1 INTRODUCTION**

This chapter outlines the conclusions of the study. The study was undertaken with the intention of establishing that the present laws in the Kenya are insufficient to adequately cater for the health and safety of workers in mines

### **5.2 FINDINGS**

#### **OBJECTIVE I**

In Chapter One, the study was able to show the risks dangers coal workers are exposed to in the mines. Further, as was expounded on in chapter two, we were able to see that the current laws and policies governing, safety and welfare does not adequately cater for coal workers. It was concluded that the legislature needs to go back to the drawing board and come up with a better policy and legal framework that addresses the health and safety of coal workers.

We have been able to see, in chapter three, how Australia and South Africa, have taken into account the occupation safety and health of coal workers.

#### **OBJECTIVE II**

Through the examination of the legal framework governing the occupational safety and health of coal workers in Australia and South Africa, the study has managed to show key features of the legislations therein and the positive impacts it has had in the prevention and minimization of risk. Finally, in chapter four, we were able to see key features of these legislations that Kenya can adopt in its existing framework.

#### **OBJECTIVE III**

The study has suggested various measures that can be undertaken to be done to ensure the health and safety of the coal workers.

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