

# MINES INSPECTORATE

## Challenging the Challenging Regulatory Environment in PNG

by  
Mohan Singh\*

### Background

*We live in a material world where the economy is fueled by consumerism and sustained primarily by consumers' lust for and capacity to spend. 'Minerals' - a commodity that lures the consumer with its own lustre, thus remains one of the critical drivers of a nation's economy in particular and the whole world in general. Over time, the human race has witnessed the roller coaster behaviour of the commodity prices that kept changing the economic order from time to time. Likewise, recent times are the ones when the commodity prices mostly declined, plunging the Mining Industry into rough weather and challenging the mining fraternity to find more pragmatic strategies and solutions to keep its head above the water.*

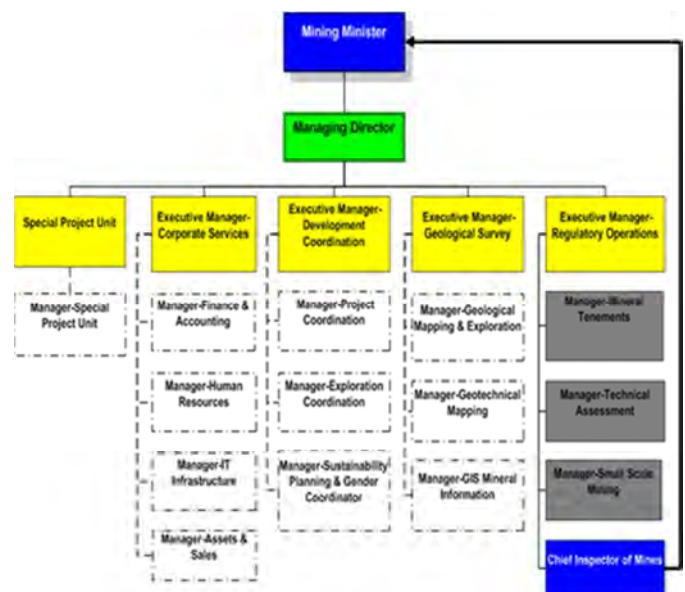
*Most would scarcely believe that a Mining Regulator around the Equator had also been tunneling its way through a mountain of odd challenges during these times. Only a serious reader would be able to appreciate the extent and depth of this trench as he dives into the depths of the brief account, captured in this article.....*

The Independent State of Papua New Guinea (PNG) is proud to have some of the biggest and most advanced opencast mines in the world in terms of engineering, technology, mechanization, processes and systems. The State also awaits one of the world's largest underground mine with block-caving method to come on board in the future. PNG already stands on the threshold of having the world's first deep sea mine to extract Seafloor Massive Sulfides (SMS) from a depth of about 1600m! PNG also holds enormous potential in the area of geothermal energy which would bring another dimension to the regulation of its robust and world class Mining Industry.

In the backdrop of such state-of-the-art technical environment, the subject of Occupational Health and Safety in PNG is governed by an outdated legislation viz; The **Mining (Safety) Act 1977** and **Mining (Safety) Regulation 1935** through the Mines Inspectorate Branch of the Regulatory Operations Division (ROD) of the Mineral Resources Authority (MRA).

As per provisions of the Mining (Safety) Act 1977, the statutory appointments of the Chief Inspector and all Inspectors are made by the Mining Minister through gazettal notification and the Act obligates the Chief Inspector to report any matter under the Act directly to the Minister. However, the Mines Inspectorate banks wholly on MRA for its administrative support and resource requirements.

Organization structure of the Mineral Resources Authority vis-à-vis the Office of the Chief Inspector is depicted below:



Upon joining MRA as the Chief Inspector of Mines couple of years back, the author inherited a very noble and novice team of

\*Chief Inspector of Mines, Mineral Resources Authority, Papua New Guinea

only 3 Inspectors which reduced to only 1 in 2010, then rose to 2 in 2012, and 3 in 2013, but remained so till beginning of 2014! The legacy was so cruel that the author inherited practically nothing in terms of strategy, systems, procedures and records for steering such a critical regulatory institution!

On the other front, the old and obsolete legislation of 1935 and 1977 looked like a dwarf before the modern day and highly sophisticated Mining Industry in PNG. Due to long absence of a fulltime Chief Inspector, not only the Mines Inspectorate was directionless but also the whole Mining Industry had virtually disintegrated and drifted to an alien territory with high rates of accidents and incidents.

On the international platform, PNG virtually had no recognition as a Mine Safety Regulator!

It is in this very brief yet dismal and disappointing backdrop that the Mines Inspectorate's journey in the subsequent years, attract special attention and appreciation. Listed below are the significant milestones that the Mines Inspectorate achieved over the last five years:

## 1. Organisational Level

### (a) Strategy and Systems

With a view to define the future road map, the author developed the 'Strategic Plan 2009-14'. He also introduced various formats, templates, reports, systems and protocols for better management and effective discharge of Inspectorate's obligations and mandate.

Most notable amongst them are; Monthly OHS Reports, Quarterly OHS Reports and Yearly OHS Booklet for the Industry; Monthly Performance Report, Inspection Report Format & Accident Inquiry Report Format for Inspectors; Filing & Archiving System, Receipt & Dispatch System for the Inspectorate; Quarterly Performance Report for MRA; Resourcing &

Restructuring Submissions for the MRA Board etc.



### (b) Resourcing & Capacity Building

There were only 7 sanctioned positions in the Mines Inspectorate when the author took over. This apart, the pay-scales of Inspectors were not competitive enough to attract and retain them for long. Consequently, people kept coming and going out of the Inspectorate without making much impact or contributions.

With the steadfast resolve to build a strong team, we could get **12 additional** positions sanctioned by the MRA Board and also a significant rise in the pay packages for the national Inspectors. Consequently, Mines Inspectorate now has **12 staff** in position while the remaining **7 vacancies** are in the process of being filled in shortly. The author could also convince the Board to increase the Inspectorate strength to **34** which was agreed in principle! This increase is being envisaged primarily in the light of proposed amendments to the Mining (Safety) Act and Regulation that would exponentially increase the Inspectorate's regulatory jurisdiction thus requiring commensurate resources.

To build Inspectorate's capacity, National Inspectors are deputed to different mines to better understand the PNG Mining Industry, its operations and challenges. They also avail opportunities to attend special training courses organized by mines & MRA.



Due to our goodwill with the neighbours, our Inspectors also attend special training courses organized by the Western Australian Inspectorate in Perth. Inspectors were also sent for training to Singapore and Indonesia.

We have also been able to secure two of our Inspectors to attend special Inspectors' Training Course organized by the International Centre for Mining Development (IC4MD) in Brisbane in July/August this year (2014).

Possibilities are also being explored to identify and engage specialized training providers for in-house training of our Inspectors on a regular basis.

**(c) Lateral Support**

Apart from managing its own affairs in a highly constrained environment, the Mines Inspectorate had been significantly contributing to various MRA functions and State level meetings, including Chief Inspector's distinct role on the Mining Advisory Council.

The author also serves on the State Working Group, formed to consult with the Mining Industry and finalize amendments to various Mining Legislations and Policies which the National Government, through the Department of Mineral Policy and Geohazards Management, is driving hard to conclude within the current year.



Mines Inspectorate also regularly offers its valuable professional advice on various regulatory matters of national interest and international importance to the Office of the Hon'ble Mining Minister.

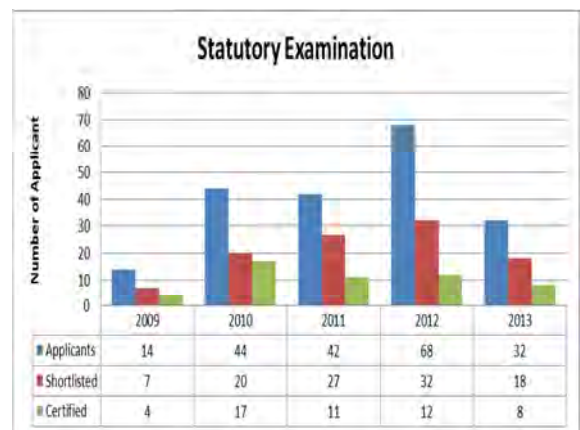
**2. Industry (National) Level**

**(a) Lifting the bar on statutory management of mines**

Mines in the country were being managed by Mine Managers who held junior positions in the management hierarchy at the project level thus subordinating such a critical and vital role of a Registered Mine Manager, and seriously compromising with his statutory responsibilities under the Mining (Safety) Act. The Mines Inspectorate lead the Industry to completely eclipse this scenario and today, the mines are under the charge of General Managers as the Registered Mine Managers under the Act.

**(b) Redefining the process of Competency Examinations**

The legacy of conducting these examinations with only one theory paper and too many & too bookish questions was transformed into a written examination with few practical questions to judge the managerial and decision making capabilities followed by an oral examination to assess communication and presentation skills of the candidates. This pragmatic shift in the examination and assessment process was very much applauded by the candidates and the Industry, which sucked many senior candidates every year as depicted in the chart and photographs below:





**(c) Encouraging Self-Regulation and Collaboration**

With a view to rewrite the chapters on self-regulation and collaboration, we constituted three non-statutory Industry bodies viz; **National Apex Mining Safety Council, National Mining Safety Forum and National Mining Emergency Response Forum.**

These bodies are represented by the senior mine executives and meet regularly on quarterly basis under the Presidency of the Chief Inspector to steer the Mining Industry for enhancing mutual cooperation, participation and promoting safety and health to tens of thousands of persons employed in our mines. These fora are quite vibrant and had been able to deliver Industry guidelines on couple of generic safety related issues as well as imparting special thrust to various safety promotional initiatives.



**(d) National Mining Emergency Response Challenge**

As an outcome of the above endeavours, people of PNG witnessed the **1<sup>st</sup> National Mining Emergency Response Challenge in 2011** which was organised in Lae. ER teams from various mines participated and generated a new enthusiasm in the workforce.



In the same sequence, the 2<sup>nd</sup> & 3<sup>rd</sup> ER Challenges were held in Port Moresby in the year 2012 and 2013 respectively.



It is further pleasing to note that apart from the Mining Industry, a team from the Petroleum Industry also participated in these Challenges!



**Mutual Aid Agreement** that is signed on such occasions is another excellent initiative that provides a framework to collectively respond in the unlikely event of an emergency at any mining site in the country.



The **4<sup>th</sup> National Mining Emergency Response Challenge** has been scheduled in September this year at Kavieng in New Ireland Province.

#### (e) National Mining Safety Week

Transforming the situation further, the Nation witnessed its **1<sup>st</sup> National Mining Safety Week in 2012** which not only embraced the mining workforce into its strong fold but also the surrounding communities as well as the school children, thus redefining the chapters on safety and health. The 2<sup>nd</sup> & 3<sup>rd</sup> National Mining Safety Weeks were celebrated in March 2013 and 2014 respectively which is another resounding success story. Through the week long celebrations, various events are organised at each mine site to engage and remind the mine employees about the

importance of safety and health in their daily lives.



#### (f) 1<sup>st</sup> PNG Mining & Petroleum OHS Conference

With constant thrust and encouragement from the Office of the Chief Inspector, the Mining and Petroleum Industry collectively took another leap and hosted the **1<sup>st</sup> PNG Mining & Petroleum OHS Conference** in July 2013 in Port Moresby which was inaugurated by the Hon'ble Mining Minister and attended by about 200 delegates. The Conference generated immense interest in the participants and was a grand success.



Mines Inspectorate would continue to encourage the Industry host such Conferences on a regular basis.

**(g) Chief Inspector’s Report 2012**

Hon’ble Mining Minister formally released the **Chief Inspector of Mines’s Report 2012**, *first of its kind*, at the inaugural function of the PNG Mining & Petroleum OHS Conference held in July 2013 in Port Moresby.



Such a Report eluded the Mining Industry and other stake holders all these decades. The Report serves the Industry and other stakeholders as a mine of information on Industry’s performance in the area of health and safety as well as project updates, apart from a spotlight on the Mines Inspectorate.

Extremely pleased with the publication, Hon’ble Mining Minister also intends to present this vital report to the Parliament.

**(h) Industry OHS Performance Reviews**

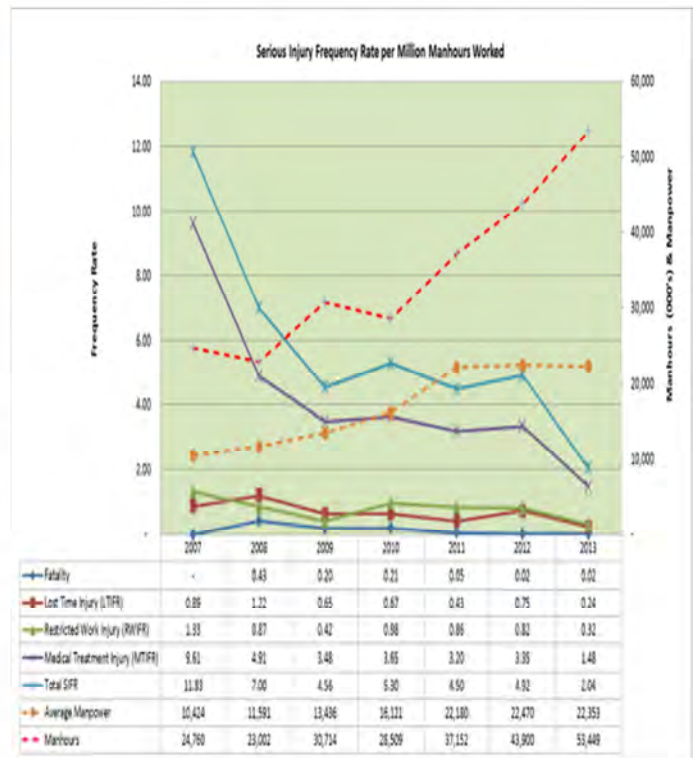
Mines Inspectorate holds quarterly reviews with the Industry to continuously oversee its performance and impart necessary

direction. These exercises, working as a team, have generated a new environment of mutual trust and partnership with the Industry that is writing new chapters of governance in PNG.



**(i) Impact on Safety Performance**

Over five years of persuasion and perseverance did make a visible dent all around, which in more tangible terms can be appreciated in the following graphs on the safety performance of the Industry:



These graphs elude us to the fact that the higher trends in fatalities and injuries till 2007-2008 were not only arrested but nosedived in the subsequent years while employment in the Industry kept rising!

Exponential drop in the *'fatality rate'* from 0.43 in 2008 to just 0.02 in 2013 (a reduction of more than 95% !) and *'serious injury frequency rate'* from 11.83 in 2007 to 2.04 in 2013 (a reduction of around 83% ! ) while the Industry reported 53,449,456 man-hours (avg. employment of 22,353 persons) in 2013 against 24,760,216 man-hours (avg. employment of 10,424 persons) in 2007, are some unbelievable testimonies to the bubbling spirit and commitment in sky-rocketing the safety performance!

It is extremely satisfying to further note that we are enjoying *fatality free period* since 2<sup>nd</sup> January 2013 and it is still counting at the time of reflecting on this sojourn at the mid of August 2014 (about 600 days)!

### 3. International Level

#### (a) Conference of Chief Inspectors of Mines

Mines Inspectorate scaled new heights when it, for the first time in the recent history of PNG, hosted the *'Conference of Chief Inspectors of Mines (CCIM)'* in September 2012 and lifted the profile of PNG and its Mining Industry to an entirely new level.



Chief Inspectors from all States and Territories of Australia, and New Zealand visited PNG and travelled to some of the mine sites.



Hon'ble Mining Minister availed the opportunity to host a Ministerial Dinner for them and it was an uplifting experience for him to listen from them about the PNG's cultural diversity as well as magnanimity of PNG's vibrant and robust Mining Industry.

It is also a matter of great pride for PNG and its Industry that their Chief Inspector chaired the CCIM held in Perth, Western Australia in September 2013.



It is worth noting that PNG was merely an *'observer'* on this forum till 2011 and it had been a great journey for PNG from back to front in just two years!

#### (b) Member of the International Ocean Mining Committee

As is well known, PNG is on the threshold of becoming world's first nation to mine Massive Sulphides from the deep sea floor. While this development would put PNG in the forefront of this new technology, it would also bring new challenges for it to effectively regulate these operations.

The author, therefore, secured membership for PNG on the **International Ocean Mining Committee** which is represented by India, Korea, Japan, China, United States,

Germany, Russian Federation, Bulgaria, Czech Rep., Slovakia & Cuba.



PNG would now be able to interact and collaborate with other nations for better understanding of the dynamics of this new frontier and keep abreast with the latest developments. The Chief Inspector represented PNG at the 10<sup>th</sup> Ocean Mining Symposium held in Poland in October 2013.

**(c) International Promotion & Collaboration**

The author had also been projecting and promoting PNG on various International platforms from time to time to make it an attractive destination for investment and business.



The Mines Inspectorate hosted two consultant mining regulators from Canada in January 14 who had expressed interest in visiting mines in PNG, thus making the country a preferred destination for the regulatory bodies of the developed world as well, and open new frontiers for international collaboration in the area of health and safety regulation.



It's again a matter of great pride for PNG that its Chief Inspector has been invited as a keynote speaker at the *Queensland Mining Industry-Health and Safety Conference 2014* in August this year.

**4. Some Speaking Accounts**

The picture projected so far can be modestly considered only a tip of the iceberg as a significant segment still remains submerged in the souls, minds and hearts of our countless stakeholders who have their own stories to share.

Amongst numerous others, the Hon'ble Ministers for Mining on several occasions brought on record;

*"I think the mining companies are seeing that he (Singh) is a no non sense person. He is a qualified person and he reports to me directly.... I do not manipulate his work as Minister of Mines"*

***Hon'ble Sir Puka Temu, MP***

*"May I quickly add here that the Mines Inspectorate under the leadership of our Chief Inspector of Mines; Mr Mohan Singh, is*



*scaling new heights in transforming the mining regulatory environment in the country which all of you are not only aware of but also very much an integral part of. By his unwavering dedication and commitment, the Chief is steadfastly enthusing and engaging the Industry..."*

**Hon'ble Byron Chan, MP**

*"In his long list of 'firsts' to this nation, the Chief Inspector rightfully deserves all my praise and appreciation for his maiden publication..."*

*Fully dedicated to bring a perceptible change in the regulatory environment in PNG, Mines Inspectorate scaled many a heights in the last five years under the dynamic and visionary leadership of our Chief Inspector of Mines; Mr Mohan Singh."*

**Hon'ble Byron Chan, MP**

*"Chief Inspector's passion for the nation reached its pinnacle when he, for the first time in the known history of PNG, hosted the 'Conference of Chief Inspectors of Mines' in September 2012 and lifted the profile of our country and the Mining Industry to an entirely new level.*

*.....I, therefore, have no reservation in commending the tireless efforts of our Chief Inspector for enthusing a new life into the Mining Industry with his dedication, devotion, honesty, hard work and commitment."*

**Hon'ble Byron Chan, MP**

Having received and cherished these blessings, we also acknowledge that roses have thorns as well because we live in a world of duality. Here are few accounts of our friends who faced the brunt of this CHANGE more than others;

*".....CIM does not understand the sensitivities of PNG....."*

*"..... I will let the PM and his Chief of staff know. When do you think we will be able to resume work .....? Do you have any thoughts about what advice you can give the PM and the Mining Minister to manage.....?"*

*".....CIM is God onto himself....."*

*".....However, if we are unable to reach a satisfactory resolution on this matter, we are open to consider an application to the courts for judicial review of your decision....."*

## 5. The Near Future

While continuing with the current crusade, the Mines Inspectorate is positioning itself to undertake some more key initiatives over the next couple of years in the areas of;

5.1 *Capacity Building* in which National Inspectors shall receive specialized training, visits to mines/ other Inspectorates, attend International Conferences & Workshops etc.

5.2 *Development of Safety Regulation System* to enable capturing and processing of OHS data and information through an IT Framework with a view to enhance performance, efficiency and effectiveness.

5.3 *Promoting Health and Fitness* in the mining workforce, school children and surrounding communities through the application of an ancient yet effective technique of Yoga and Meditation which has the ability to holistically address one's physiological, psychological and spiritual needs and can thus completely transform a character!



.....Needless to emphasize that the Mines Inspectorate would need adequate budgetary and administrative support to paint the picture it has envisioned.

## 6. Vision and the Visionary

The Mines Inspectorate very much aspires to write many more new chapters to unlock the PNG potential and realize its mission of building a formidable regulatory institution that is adequately and appropriately resourced to effectively serve and lead the Mining Industry with a view to be reckoned as a force that inspires rest of the world to emulate !

The author strongly believes that CHANGE is the only CONSTANT in life and every CHANGE is often painful and resisted. He also believes that it's not the soldiers who fight on the frontier, it's their COURAGE,

and he therefore inspires his team to imbibe some of the rare virtues of *Character, Conviction, Courage, Commitment & Courtesy...*

*The game is thus still on to completely tame the challenges of a challenging regulatory environment on the 'land of the unexpected'.....!*

