

4th September 2020



MHSC

Mine Health and Safety Council

Winches and Accessories Workshop

Research Work Completed by the MHSC

By

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Presentation Outline

- Introduction – MHSC Mandate and role in the SAMI
- DMRE Report Analysis
- MHSC Quick Win Initiatives
- Summary of Research Work Completed by the MHSC
- Conclusions/Questions



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Introduction- MHSC Mandate

MHSC is a national public entity established in terms of the MHSA, No 29 of 1996.

- **Advise the Minister** on all occupational health and safety issues in the mining industry relating to legislation, research and promotion
- **Review and develop legislation (regulations)** for recommendation to the Minister
- **Promote health and safety culture** in the mining industry
- **Oversee research** in relation to health and safety in the mining industry



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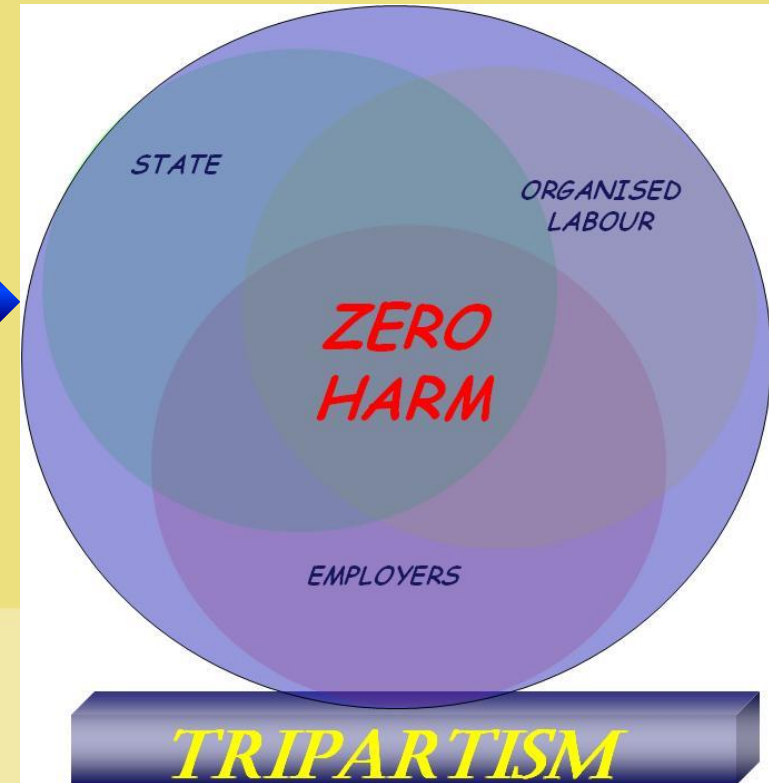
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Introduction- MHSC Role in the SAMI

- Promoting a culture of OHS.
- Fostering an effective tripartite partnership.

To promote the culture of OHS in the mining industry by striving towards zero harm on all health and safety issues and legislation

Driven by



**Mine Health and Safety Council
(MHSC)**

*State
Labour
Employers*

ARC

HRRAC

MRAC

Legislation
Regulations
Guidelines
Standards

MOHAC

Health Policy
Health Information
Health Regulations
Research Input

**Culture
Transformation
Advisory Committee
(CTAC)**

Oversight role on the
overall implementation
of culture transformation

SIMRAC

Research needs
Research Programmes

Centre of Excellence

MITHAC

HIV/AIDS and TB
Programmes

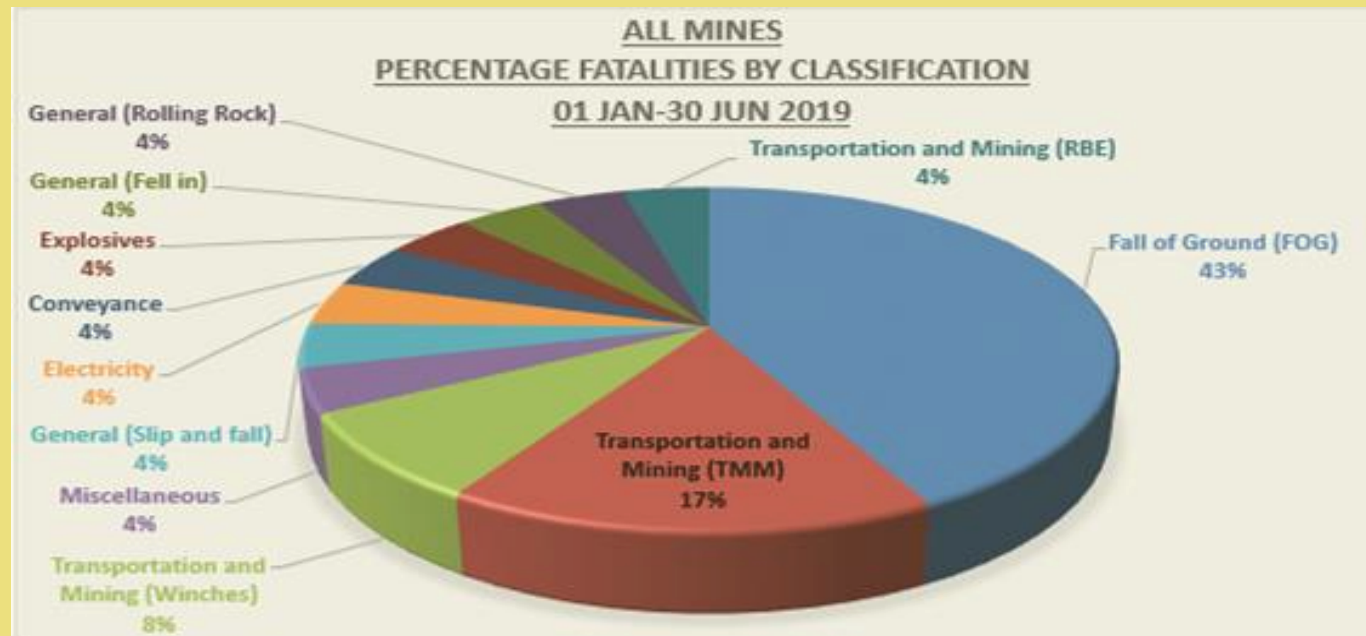


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DMRE Report Analysis (Jan – June 2019)

- Falls of Ground (FoG) – 43%
- Trackless Mobile Machinery (TMMs) – 17%
- Winches and Accessories (WA) – 8%



Latest DMRE statistics (Jan – Jul 2020)

Classification*	Persons Fatally Injured	Percentage
FOG	11	48%
Transportation and Mining (RBE)	2	10%
Transportation and Mining (TMM)	2	10%
General (Inundation)	1	4%
Transportation and Mining (Winch)	1	4%
Transportation and Mining (Conveyors)	1	4%
Electricity	1	4%
General (Rolling rock)	1	4%
Miscellaneous	1	4%
General (Struck by)	1	4%
General (Fell in)	1	4%
TOTAL	23	100%

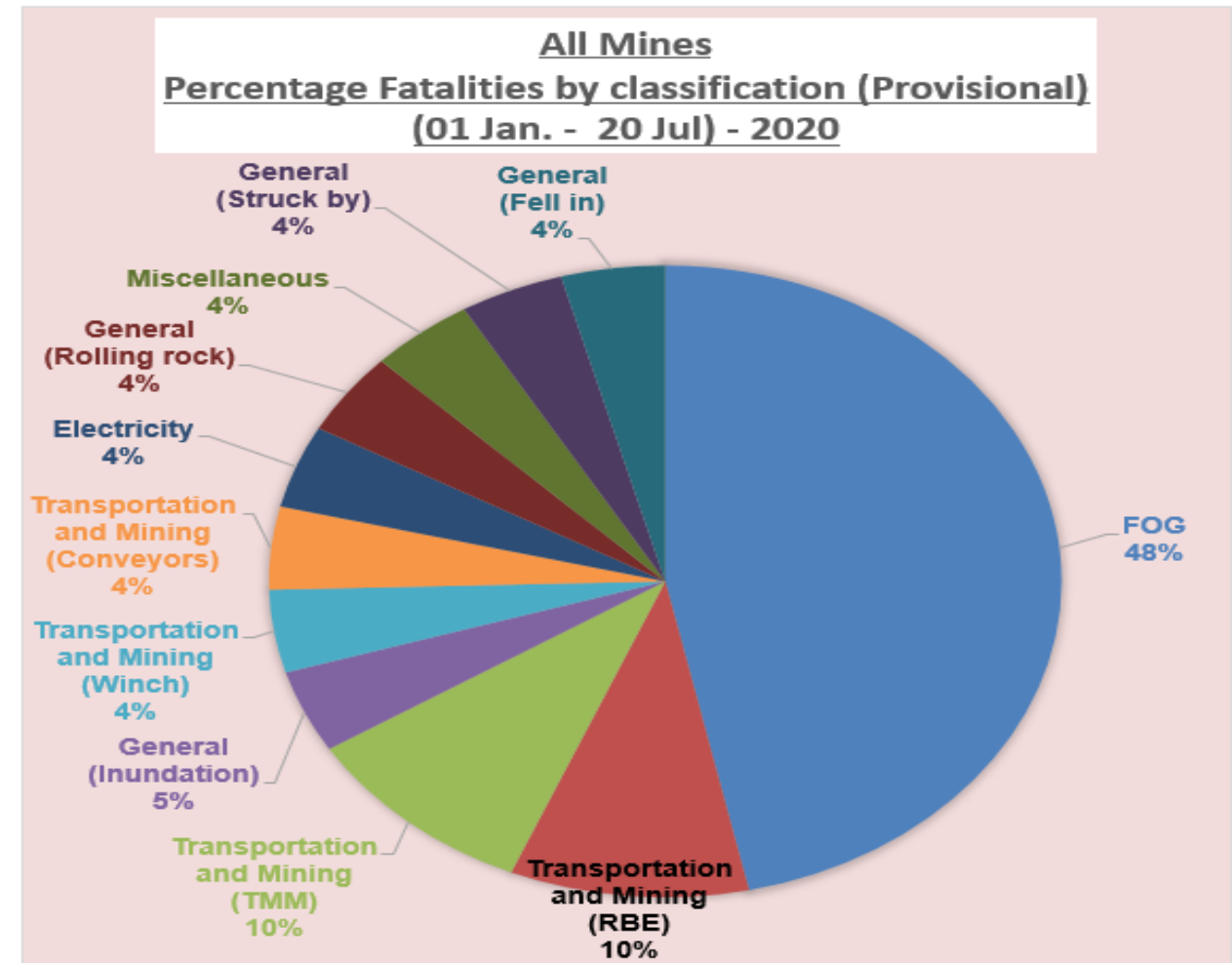
* provisional

FOG: Fall of Ground

RBE: Railbound Equipment

TMM: Trackless Mobile Machinery

Miscellaneous: Cause of fatality not yet established



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MHSC Quick Win Initiative

- Conduct detailed analysis of the relevant SAMRASS documents
(NOT POSSIBLE DUE TO COVID 19)
- Investigation on completed research work
- Hold a workshop
- Develop dissemination material



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Research Work Completed by MHSC

- [SIM 030501 – Investigate Causes of Scraper Winch Accidents in GAP Sectors.](#)
- [SIM 060502 – Best Practice: Scraper Winch Systems Design, Installation, Operation and Maintenance \(SIM 050203\)](#)



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Summary of Research Work Completed by MHSC

SIM 030501 – Investigation into the causes of accidents on scraper systems in the Gold and Platinum mining sectors

- Completed in 2003, analysed information from 1988 to 2002.
- Focus was to identify risk and hazards associated with scraper winch systems
- Main findings were:
 - Ropes contributed to highest amount of accidents in both Gold and Platinum, snatch blocks and scraper scoops were also areas of concern.



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Summary of Research Work Completed by MHSC

SIM 030501 – Continued

- Principle causes of accidents
 - Poor adherence of standards and procedures
 - Lack of training and practical application
 - Poor hazard identification skills and perceptions of risk
 - Management and supervision of safe work practice and procedures
- Accidents are primarily a managerial and operational issue



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Summary of Research Work Completed by MHSC

SIM 030501 – Recommendations

- Further research on “soft issues”
- Review the starting-up procedures
- Effective warning devices
- Stoping layouts – separation
- Improve standards
- Review splicing
- Review coiling mechanisms
- Improve ergonomics
- Behavior based safety (BBS)



Summary of Research Work Completed by MHSC

SIM 060502 – Best Practice Guide for Scraper Winches

- Completed in 2009, analysed information from 2001 to 2005.
- Considered SIM 030501 in the literature review.
- Main findings were:
 - Poor judgement (taking risky shortcut and failing)
 - Procedure not used for training purposes
 - Good guidance for development of standards and Codes of Practice
 - Technical knowledge, standards and rules and regulations are relatively sound



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Summary of Research Work Completed by MHSC

SIM 060502 – Recommendations

- Behavior Based Safety(BBS)was recommended to be explored
- Illumination, visibility, awareness (whitewashing)
- Best practice guidelines
- Address human error
- Daily reminders



Conclusion

Considering:

- Limited research work carried out
- The research work was carried out over a decade ago
- 2021/2022 Research programme – W & A and Possible Rope-less Cleaning.

WHAT MUST THE MHSC PACKAGE FOR YOU?



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Questions





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Thank you

EVERY MINE WORKER RETURNING FROM WORK UNHARMED EVERYDAY

22 Years of Positive Contribution to Zero Harm for mine workers.

Pursuing Research Excellence