Benchmarking For OSH Management Systems Among Fire and Rescue Services in The United States of America, England, Singapore, and Malaysia

Presented by:
Noor Diyana binti Fazan Ahmad
Social Research Officer
National Defence Universitiy of Malaysia

cosh.niosh.com.my

THE FUTURE OF WORK

CONTENTS

- Introduction
- Method
- Results
- Recommendations
- Conclusion

Introduction

- The Fire and Rescue Department of Malaysia (FRDM) is the main emergency responder in Malaysia : regularly exposed to various hazards
- Several cases were reported during training and emergency response and deaths in 2018.
- Challenges faced by FRDM: highlights the significance of the OSHMS in FRDM as a standard of occupational risk management within the public defence sector in the country
- To safeguard the well-being of fire fighters to ensure:
  - the safety of the personnel
  - effectiveness of operations
  - compliance to legal requirements
  - effective resource management
  - mitigation of risks, and
  - encourages continuous learning and improvement

Objectives

1. To benchmark OSHMS in other countries namely The United States of America (U.S.A.), England and Singapore to provide solutions and improve the current OSHMS specifically for FRDM.
2. to identify several key recommendations to further improve FRDM's OSHMS.

Methods

1. Benchmarking: external via comparison between different organisations, or similar organisation from different locales (Maire et al. 2005).
   • comparative analysis of various indicators or elements of the organisations/units selected
   • potentially adopt and adapt practices judged as best-in-class (Büyüközkan and Maire, 1998).

2. Indicators:
   • Governance
   • Legislations and OSHMS
   • Roles and responsibilities
   • Operational risk management
   • Health monitoring
   • Personnel welfare

Countries:

The United States of America

England

Singapore

Malaysia

Document analysis

Interviews

Visits to training academies

Results

Indicators	🇺🇸	🏴󠁧󠁢󠁥󠁮󠁧󠁿	🇸🇬	🇲🇾
Governance	**National:** United States Fire Administration **Fire services:** according to their paramilitary lines	**National level:** The Home Office **Fire services:** Based on county or city	**Jurisdiction:** Ministry of Home Affairs **Fire services:** Based on area	**Jurisdiction:** Ministry of Housing and Local Government **Fire services:** Federal level-HQ State Zones
Legislations and OSHMS	The United States' OSH Act of 1970	• Health and Safety at Work etc. Act 1974 • Management of Health and Safety at Work Regulations 1999 • London Fire Brigade: • Health and Safety Policy (Policy number 597).	• Fire Safety Act 1993 • Civil Defence Act 1986 is • SS ISO 45000:2018	• Fire Services Act 1988 • Occupational Safety and Health Policy • of Act 514 Occupational Safety and Health Act 1994

Results

Indicators	🇺🇸	🏴	🇸🇬	🇲🇾
Roles and responsibilities	• Firefighting • Fire safety emergency medical services • Other emergency response (disasters and terrorist acts, arson prevention and detection, maritime firefighting, and handling of hazardous materials) Specialised services: • vehicle extraction, fire/ • Injury prevention/public education, • Wildfire/Urban wildland interface, • Fire investigation/fire cause determination, fire inspection/code enforcement, technical/specialized rescue • HAZMAT team	• fire safety • firefighting • manage road traffic accidents • responsible during emergencies	• saving and protection of human lives • drafting, enforcing, and regulating fire safety laws as well civil defence shelter matters	• extinguish, fight, prevent and control fires; • protect lives and properties in the event of a fire; • secure provision, maintenance, and proper regulation of fire escapes, • secure provision of adequate means of exit in the event of fire • investigation into the cause, origin, and nature of fire events • perform humanitarian services including protection of life and property in any disaster. • Specialised units: PPDA, HAZMAT, EMRS, MUST, PASKUB

Results

Indicators	🇺🇸	🏴󠁧󠁢󠁥󠁮󠁧󠁿	🇸🇬	🇲🇾
Operational risk management	3 levels of risk management: • community level • organisation level • for emergency response operations core activities: identifying risks, evaluating risks, establish priorities for action, determine risk controls, monitor risks and perform follow-up actions	Operational guideline: • generic risk assessments guidelines • operational guidance Includes: scope and definitions of the type of rescue, identification of significant hazards and risks, key control measures such as planning, training, command and control, roles of safety officers, personal protective equipment, post-incident measures and technical references	risk management department was established recently in 2020 with the role of analysing incident reports, conducting risk assessment on site and propose improvements to reduce occupational risk	• guided by the Operations Commander (OC) who are responsible in assessing risks and making on-site decisions • RECEO and SLICER methods are applied by FRDM to assess the situation and formulating firefighting or rescue strategies

Results

Indicators	🇺🇸	🏴󠁧󠁢󠁥󠁮󠁧󠁿	🇸🇬	🇲🇾
Health monitoring	• wellness and fitness programs • Standards on Comprehensive Occupational Medical Program for Fire Departments (1582) • Appointed department physicians-guide and advise their personnel in aspects of health, fitness and suitability for duty. • medical evaluations are also considered compulsory following the personnel's occupational exposure, illness, injury, or absence from the job.	• monitoring system and periodically reviewing and reporting their personnel's health status • Record: Trend of injuries and near misses • Comprehensive health checks – higher risk groups	Health screening of officers: • < 35 years old – once every 5 years • > 35 years old – once a year Personnel diagnosed with illness-3 months monitoring	• Yearly health check up • Full medical check up for PPDA

Results

Indicators	🇺🇸	🏴󠁧󠁢󠁥󠁮󠁧󠁿	🇸🇬	🇲🇾
Welfare	• Highlights women's rights and people of color • Assault, harassment, exclusion	• Health, Safety and Welfare for the Operational Environment: • impact of fatigue • reduce physiological strain • hygienic conditions • recovery period	• provision of immediate medical treatment and consultation by a specialized SCDF Medical Officer • Monthly interviews by the Platoon Commander • Dialogues with para-counselors • Provision of recreational facilities	• Compensation to personnel through established funds • FRDM's Occupational Safety and Health Manual

Recommendations

Improving existing arrangements for reporting injuries during operations - developing a **Nationally Standardised Incident Reporting And Data Management System.**

Redefine the roles of FRDM listed in Act 341 - To reduce hazard exposure and ensure a more focused job scope for firefighters in Malaysia.

Detailed Risk Assessment Procedure Or Guideline - Control measures pre-incident, during and after the incident is crucial as it provides the identification of significant hazards and risks as well as control measures.

Develop a Systematic Health Monitoring And Medical Evaluation Program - to monitor the personnel's health status and ensure they are fit for operations.

A more comprehensive welfare program - protection of FRDM personnel during operations as a preventive measure (work rotations, provision of refreshments, management of stress and appropriate recovery period to avoid physiological strain and fatigue)

Conclusion

1. Key findings provided an overview of the OSHMS.
2. Several suggestions and recommendations for further improvement.
3. **Limitations:**
   - findings are limited to the availability of information online for the U.S.A. and England, and any information gathered through interviews, discussions and documentation provided by SCDF and FRDM.
4. The suggestions and recommendations may be deliberated by stakeholders (FRDM, Ministry of Housing and Local Government, Department of Occupational Safety and Health)
5. The improvements may be adapted to other emergency responders (e.g. RMP and APM).