OCCUPATIONAL SAFETY AND HEALTH

MASTER PLAN

2021-2025

INCLUSIVE OSH - TOGETHERNESS AND COMMITMENT

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MASTER PLAN
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2021-2025

(CONTENT)

OSHMP (2021-2025)

‖‖‖‖‖‖‖‖‖‖ INTRODUCTION

EMPOWERING OSH IN THE PUBLIC SECTOR

STRATEGY 1

REINFORCING SELF-REGULATION PRACTICES IN THE WORKPLACE

STRATEGY 2

PROMOTING OSH EDUCATION AND RESEARCH

STRATEGY 3

EMPOWERING OCCUPATIONAL HEALTH

4

ENHANCING OSH COMPLIANCE IN SME SECTOR

5

ENHANCING OSH THROUGH TECHNOLOGY

6

STRENGTHENING OSH IN WORK-RELATED ROAD SAFETY (WRRS), INFORMAL SECTORS AND FUTURE JOBS

7

Closing: Vision Achievement - Prospectus

OSHMP
(2021-2025)

FOREWORD BY
THE PRIME MINISTER

YAB Dato' Sri Ismail Sabri Yaakob
PRIME MINISTER OF MALAYSIA

In line with the rapid development of the Country's economy over the past six decades, Malaysia has become an upper-middle-income country.

By capitalizing on resources, talent, skills and expertise, we have succeeded in driving the Nation's economic development and increasing the people's income. The people's quality of life has also improved, resulting from the increase in per capita and average household income. To allow Malaysia to emerge as a dynamic economic axis in Asia, efforts will be focused on positioning the country's economy on a real potential growth path within the 12th MP time frame.

Moving forward, we need to endure a more challenging and competitive global environment. Current technological development and the COVID-19 pandemic have indirectly necessitated the Government to consider every step possible in creating a safe, healthy and conducive working environment to thrust the nation's productivity and competitiveness.

I wish to congratulate the Ministry of Human Resources through the National Council of Occupational Safety and Health (NCOSH) and the Department of Occupational Safety and Health (DOSH) for the success in formulating the National Occupational Safety and Health Master Plan 2021-2025 (OSHMP25). This Master Plan is comprehensive in portraying the Government's vision and goal of strengthening the aspects of Occupational Safety and Health (OSH).

Each of us needs to carry out our respective responsibility and role to ensure the success of this Master Plan, which is in line with the theme "Inclusive OSH - Togetherness and Commitment." Firm cooperation from all parties involving Government, employers and employees is highly anticipated to ensure the mission of enhancing the nation's OSH is successfully implemented.

Thank you

"Each of us needs to carry out our respective responsibility and role to ensure the success of this Master Plan, which is in line with the theme "Inclusive OSH - Togetherness and Commitment.""

MINISTER OF HUMAN RESOURCES

YB Datuk Seri M. Saravanan
MINISTER OF HUMAN RESOURCES

"To ensure every employer and employee in this country is protected, aspects of OSH are vital elements in ensuring a safe, healthy, and conducive workplace as well as the driving force for employers and employees to increase productivity."

In efforts to transform Malaysia into a developed and high-income nation, we need to assure that employers and employees work in a safe, healthy, and conducive environment. The National Occupational Safety and Health Master Plan 2021-2025 (OSHMP25) documents the commitment and direction of the National Occupational Safety and Health (OSH) for the next five years. The development of OSHMP25 is in line with the Government's vision. Each of its strategies is formulated to support the foundations towards the realization of a high-income developed nation and the transformation of a nation centered on Inclusive OSH - togetherness, and commitment.

To ensure every employer and employee in this country is protected, aspects of OSH are a vital element in ensuring a safe, healthy, and conducive and the driving force for employers and employees to increase productivity. Furthermore, the Country also needs to ensure the level of compliance and OSH practice standards in this country according to international OSH standards.

In realising this fact, the Ministry of Human Resources, through the role led by the National Council of Occupational Safety and Health (NCOSH) and Department of Occupational Safety and Health (DOSH), have taken proactive steps in developing OSHMP25 to become the foundation and direction for the country's OSH development activities.

Last but not least, I call upon the cooperation and commitment of all parties to come together with determination and solidarity towards the success of this master plan. The OSH transformation process in this country requires us to be assiduous in moving forward in ensuring the success of the important mission and the Shared Prosperity Vision 2030 (SPV 2030).

Thank you.

CHAIRMAN OF NCOSH

YB Datuk Haji Awang bin Hashim
CHAIRMAN OF NCOSH

"To further enhance OSH system in our country, the Government launches OSHMP25, which focuses on inculcating the values of Inclusive OSH - togetherness and commitment to encourage participation of all parties towards the success of this national mission."

First and foremost, I wish to extend my utmost gratitude to the Department of Occupational Safety and Health (DOSH) for their high commitment to formulating the National Occupational Safety and Health Master Plan 2021-2025 (OSHMP25). Well done, and congratulations.

The contribution of each employee is significant in efforts towards achieving a high income developed nation status by 2025. The Government realises that in line with implementing the country's transformation policies and technological revolution, risks related to OSH have also increased.

In this context, the Government strives to ensure that occupational safety and health standards are continuously reviewed and reformulated to remain relevant to the current requirements.

In line with the current development, the Government, through the Ministry of Human Resources, will continue to implement various efforts to overcome issues related to OSH. This includes formulating new strategies and increasing OSH enforcement

at the workplace, formulating rules and standards, conducting training and promotional activities on OSH in every occupational sector.

To further enhance OSH system in our country, the Government launches OSHMP25 which focuses on inculcating the values of Inclusive OSH - togetherness and commitment to encourage the participation of all parties towards the success of this national mission and subsequently strengthening the formation of "safe and healthy work culture" among employers and employees. This is a continuity of proliferation of accountability and self-regulation values in previous master plans.

My hope is for all stakeholders to support the Government's efforts in transforming OSH in this country towards the formation of safe and healthy work culture. The formation of safe and healthy work culture cannot be successfully implemented without the cooperation and firm support of all parties, especially in complying with the effective law and regulations.

Thank you.

FOREWORD BY
SECRETARY GENERAL OF MINISTRY OF HUMAN RESOURCES

Datuk Muhd Khair Razman bin Mohamed Annuar

DEPUTY SECRETARY GENERAL (OPERATIONS)
(Undertaking Duties of Secretary-General)
Ministry of Human Resources

"I hope that this formulated master plan will be able to propel OSH to a higher level to protect employers and employees in the country."

Ministry of Human Resources is always committed in ensuring employers and employees are able to work in a safe, healthy and conducive working environment. This commitment is transposed by the formulation of this National Occupational Safety and Health Master Plan 2021-2025 (OSHMP25) prepared by DOSH.

OSHMP25 was developed encompassing various initiatives to ensure an increase in OSH compliance in the workplace. It is transposed through specific strategic cores stated in this OSHMP25. I hope that this formulated master plan will be able to propel the OSH level to a higher level in protecting employers and employees in the country.

In line with OSHMP25 theme: Inclusive OSH - Togetherness and Commitment, all parties are required to provide full commitment as well as joint efforts towards realising OSH as national agenda for realising the formation of "safe and healthy work culture" among employers and employees in the country.

I hope with the realisation of this Master Plan accompanied with the dedication and commitment of all parties in implementing and bringing it to success, we will be working together towards creating a safe and healthy work environment which is at par with developed nations in the world.

Thank you.

DIRECTOR GENERAL OF DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH MALAYSIA

Ir. Zailee bin Dollah

DIRECTOR GENERAL, DOSH MALAYSIA

"In-silo work culture should be transformed to strategic and systematic work culture across sectors."

Alhamdulillah, I am thankful to Allah S.W.T. for His blessings that the Department of Occupational Safety and Health (DOSH) remains consistent in continuing the momentum to implement the National OSH Master Plan started in 2011. The Occupational Safety and Health Master Plan 2021-2025 (OSHMP25) is a continuity of the OSH Master Plan 2011-2015 (OSHMP 15) and OSH Master Plan 2016-2020 (OSHMP2020). OSHMP is a concerted and continuous effort toward creating a safe and healthy work culture in Malaysia as well as increasing the compliance level of OSH in the Country. The most significant moment is when a major part of what has been incorporated in this master plan can be implemented successfully and achieves the targeted goal.

Enculturing OSH practices continuously requires the cooperation of various stakeholders through the enhancement of working relations and resource sharing. In-silo work culture should be transformed into strategic and systematic work culture across sectors. Through this master plan, among the principal objectives identified includes reducing occupational death rates to

2.93/100,000 employees, reducing occupational accident rates to 2.13/1,000 employees, as well as increasing awareness in carrying out diagnostics and reporting occupational illnesses and poisoning by 30 percent by 2025.

I hope that this master plan will be able to propel the National OSH to a higher level. All parties need to muster energies and efforts in turning OSH into one of the contributors to realising the nation's goals towards making Malaysia a Nation that continues to develop sustainably with a fair, equitable, and inclusive economic distribution to all.

I wish that all actions taken will provide comprehensive benefits and impacts to all parties, especially employers and employees who dream of a safe, healthy and conducive working environment. Let us join hands to ensure OSHMP25 achieves its vision and mission that have been meticulously formulated.

Thank you.

MEMBERS OF THE NATIONAL COUNCIL OF OCCUPATIONAL SAFETY AND HEALTH

DATO' DR. SYED HUSSAIN SYED HUSMAN J.P.
PRESIDENT OF MEF

"OSH has had a long and arduous journey in Malaysia and the OSHMP25 signifies our great strides over the years as well as points to our future direction. In striving to further excel OSH performance and standards, the present disruptive environment provides an opportune moment to shift gears for OSH to be driven by industry with the support of the government. With the combined knowledge of industry experts and its advanced technological tools, the OSHMP25 has laid the tracks for OSH to be industry-driven and we embrace this challenge for the betterment of OSH in Malaysia. OSH saves lives."

TAN SRI DATUK SERI TAN KEAN SOON
EXECUTIVE DEPUTY CHAIRMAN T7GLOBAL

"We strongly support on the implementation of OSHMP25 which is crucial in creating healthy and safety ecosystem within our industries to enable our workforce to be more safety and efficient and placing workers' welfare as top priority at all levels of organization."

DR PRIYA RAGUNATH
HEAD, OCCUPATIONAL AND ENVIRONMENTAL HEALTH SECTOR, MINISTRY OF HEALTH, MALAYSIA.

"OSHMP25 provides a national system of enhancing safety and health at the workplace, encompassing all sectors while taking into consideration the needs of the various organizations. In light of the COVID-19 pandemic, emphasis on occupational health has seen new light and OSHMP25 provides the platform for enhancing and integrating these services to be inclusive of the current requirements such as the new norms which should be practiced at the workplace and also out of the workplace".

INTRODUCTION

- OSH Contributions to National Policies
- Vision
- Mision
- Goals of 2025
- OSH Master Plan Outcomes 2021-2025

INTRODUCTION

Occupational Safety and Health Master Plan 2021-2025 (OSHMP25) is a strategy and programme formulated to propel the nation's occupational safety and health (OSH) to a more excellent level aiming to protect human resources, which is an important asset to bring success to the nation's development programme in realising the Shared Prosperity Vision 2030 (SPV 2030).

"Safe and healthy work culture forms the pillars in making the workplace in Malaysia safe and healthy."

The excellent OSH performance will increase the quality, productivity, life capacity, and occupation, which subsequently creates a safe, healthy and conducive working environment. This will directly contribute to the increase in Working Environment Component Index under Malaysian Well-being Index, which is in line with the nation's OSH Policy to achieve SPV 2030 goals. This Master Plan is a continuity of three previous OSH five-year strategic plans started in 2006 with the aim to form Safe and Healthy Work culture among employers and employees. Safe and Healthy Work Culture is the pillar in making the workplace in Malaysia safe and healthy through comprehensive occupational disease and accident prevention strategic programmes.

The OSHMP25 principal strategy is to inculcate a "Safety Culture' in the workplace. Positive safety culture is characterized by the attitude and internal nature of the organization and individual that emphasizes safety aspects. Therefore, safety cultures prerequisites all duties and requirements related to safety to be implemented transparently, equitably, and with utmost responsibility. However, the safety culture in each organization is, in fact, more different and varied; as the saying goes, a family is different from another family. This requires a more specific observation according to context towards achieving a safety culture that is appropriate to specific conditions.

PRINCIPAL THRUST FOR TRANSFORMATION

The principal thrust for the transformation of OSHMP25 was inspired by investigation results conducted on various recent occupational accidents and disasters experienced by our country, such as the chemical contamination in Pasir Gudang, Johore, and landslides at a construction site in Penang. These incidents indirectly provide a picture that there are loopholes in the local safety system. This did not happen due to existing stipulated policies and procedures, but more to climate and organisation safety that have been practised that seem to be insecure. The lesson from these incidents is that cooperation among agencies needs to be strengthened, and this requires detailed jurisdiction between them with clearer goal setting by all parties involved.

The Department of Occupational Safety and Health (DOSH) and local authorities (PBT) has quite limited resources and a rather minimal mechanism of information dissemination. Thus, promotions and information dissemination should be targeted and expanded in order for it to provide a wider and maximum impact. The DOSH and PBT have carried out commendable work to provide significant effects for occupational safety; however, there are still areas to empower OSH in this country. Existing intervention methods used in facing OSH problems may be less effective in their implementation regarding occupational health aspects. Therefore, for this master plan, in nature, the OSHMP25 is more inclusive, comprehensive and national, where the commitment of all parties from all government agencies, stakeholders, non-governmental organizations (NGOs) and also, the general public is needed in order to contribute to the formation of a new OSH era in 2025.

The research findings through a statistical analysis conducted have shown that many employees from small and medium enterprises (SMEs) are not connected and reluctant to cooperate with the authorities. There are those who are afraid and doubtful to contact the relevant parties due to various reasons. This fear drives them to solve the OSH issues on their own initiative at their workplace Rather than referring it to the responsible parties for accurate advice.

"Efforts in fostering OSH among employers and employees are extremely challenging and need to be carried out systematically and continuously."

In Malaysia, the DOSH, along with other strategic partners, have launched a strategic approach to preventing accidents at the workplace and promoting OSH aspects through OSH 2020-2025 accidents prevention planning and promotions

Efforts in fostering OSH among employers and employees are extremely challenging and need to be carried out systematically and continuously.

It is expected that the implementation of OSHMP25 will steer the Country towards efforts of occupational accident and disease prevention that is more effective, organized and forward moving.

OSH CONTRIBUTIONS TO NATIONAL POLICIES

OSHMP25

aimed to achieve an inclusive OSH through togetherness and commitment from all related parties. A safe, healthy and conducive working environment is one of the components under the Malaysian Well-being Index, which will help an employee to be healthy, productive and innovative. This will subsequently contribute to the self-prosperity of the employee and the organization as a whole. A healthy, productive and innovative employee is highly required and is an important national asset to achieve national development policy objectives such as the Twelfth Malaysian Plan (12MP), National Occupational Safety and Health Policy (NOSHP), and Shared Prosperity Vision 2030 (SPV 2030).

Inclusivity In Generating
Safety Culture

Preventive culture and practices that may be inculcated through life-long education will be able to produce a safe and healthy workplace environment to ensure an increase in productivity. The OSHMP25 inspires an important concept in balancing OSH needs and productivity.

1.

The development of a prosperous nation is strongly supported by the harmonious development of a safe, healthy, conducive and sustainable working environment (a component of the Malaysian Well-being Index).

2.

In line with the implementation of National OSH Policy launched on 15 January 2019 by YAB Tun Dr Mahathir Mohammad, former Prime Minister of Malaysia, OSHMP25 emphasizes aspects of inclusivity and commitment by all OSH stakeholders.

OSH Practice
Among Employee

1.

To ensure that every worker acquires OSH knowledge immaculately and applies it for periodical monitoring purposes.

2.

To ensure OSH practices become the principal core in the work process involved.

3.

To provide space and opportunity for innovation and creativity among employees in increasing OSH proficiency, practice and capacity.

4.

To increase worker confidence in implementing all work processes safely and productively.

5.

To ensure zero accident at the workplace to prevent encumbrances among family, society, employer, and country caused by accident.

6.

To increase life prosperity, work enjoyment, and a safe working environment.

OSH As A Guarantee for
Employer Excellence

1.

To avoid any cost increase caused by accidents.

2.

To increase productivity through OSH comprehensive practice.

3.

To foster understanding and prosperity sharing among employees, employers, and OSH leadership.

4.

To guarantee high trust and occupational process efficiency.

5.

To avoid problems that may arise caused by neglecting aspects of OSH.

Malaysian Well-Being Index (MyWI)

Malaysian Well-Being Index (MyWI) is an improvement to the Malaysian Quality of Life Index published for the first time in 1999 to gauge the country's achievement in increasing people's quality of life.

MyWI increased by 0.8 per cent to 122.4 index points for 2018 compared to 121.4 index points for the previous year.

From the perspective of economic well-being, the working environment in 2018

recorded an increase to 125.5 index points compared to the previous (125 index points) in 2017.

TABLE 1: Malaysian Well-Being Index[1]

	Year 2018	Year 2017
Malaysian Well-Being Index	**122.4**	**121.4**
Economic Sub-Composite	131.0	130.1
Social Sub-Composite	117.7	116.5

[1] Source: Data acquired from Malaysian National Well-Being Index 2018, Malaysian Department of Statistics

Economic Sub-Composite[2]

	Year 2018	Year 2017
Economic Well-Being	**131.0**	**130.1**
Transportation	134.7	132.4
Income and distribution	133.4	132.5
Communication	130.8	131.0
Education	130.4	129.6
Working Environment	125.5	125.0

Economic Sub-Composite

	Year 2018	Year 2017
Social Well-Being	**117.7**	**116.5**
Leisure	133.9	132.2
Public Safety	132.4	130.3
Social Participation	128.6	125.7
Governance	121.5	124.3
Housing	119.9	118.5
Culture	110.6	110.5
Environment	109.3	104.3
Health	105.6	106.2
Family	97.4	96.4

In line with Malaysia's aspiration to become a developed and high-income nation, working environment quality has become a factor that is increasingly important that influences life well-being. Working environment quality can be measured from various improvement aspects in working conditions. Such improvements can increase satisfaction levels among employees, productivity and achievement, which subsequently contributes to an increase in life well-being. Four main indicators used in assessing working environment quality is the rate of accidents at the workplace, industrial disputes, loss of working days due to industrial actions, and average working hours.

OSH and World Happiness Index

OSH can be related to World Happiness Index (WHI). There are six (6) criteria in the index; two (2) of them are important elements which are social support and Gross Domestic Product (GDP) per capita. Both of these elements have relationships with the OSH aspect, where OSH requires employees to feel that there is an employee-friendly system or elements of comfort in working. Employees are happy with a system that supports them, especially in safety and health aspects, such as impeccable injury coverage and health insurance coverage which can produce higher working productivity and subsequently increase productivity and the country's GDP. This cannot be achieved if employees feel unsafe and unprotected. Employees may be prone not to work according to stipulated expectations and target by employers for fears or concerns about the risk of dangerous work, such as employees in the construction industry that are exposed to the danger of falling from high buildings and exposure to sharp materials such as piles.

Assessment conducted based on 6 main criteria:

1 GDP per capita	**2** Social support	**3** Healthy life span
4 Freedom to make life choices	**5** Generosity	**6** Corruption free

Based on the position in the 2019 Happiness Index for South-East Asia countries, Malaysia was in the world's 80th position. Malaysia dropped from 35th place to 80th place after just a period of one year. This ultimately ranked Malaysia at 4th place in South-East Asian region, which is behind Singapore at 34th place, followed by Thailand at 52nd place and the Philippines at 69th place. This is a result of research and survey conducted to gauge how much the people in a country assess their happiness level. Therefore, various drastic steps need to be taken to increase Malaysia's performance to become among the best in this region by taking into account the status of the country, which is on the level of a developing country.

TABLE 2: 2019 Happiness Index for countries in South East Asia[3]

Negara	Kedudukan
Singapore	34
Thailand	52
Philippines	69
Malaysia	80
Indonesia	92
Vietnam	94
Laos	105
Cambodia	109
Myanmar	113

[2] Source: Index is based on data from world happiness index report based on the year ending 2019.
[3] Source: Data is based on from world happiness index report based on the year ending 2019.

Landscape Paradigm of Occupational Safety and Health in the Era of Industrial Revolution 4.0

The Industrial Revolution 4.0 (IR4.0) era presents a major transformation in digitalisation and automation in all sectors mainly involving manufacturing industries. IR4.0 introduces manufacturing technology on a major scale which is more flexible. Machines will be operated independently or "cooperate" with humans in creating a manufacturing area that is customer-oriented. The IR 4.0 terminology is coined from keywords related to big data, physical cyber systems, internet of things (IoT), robotics, Artificial Intelligence (AI) and simulations. IR4.0 can also be related to cost factors and the generation of profits from the rapid development of information technology. With the availability of smart services, manufacturing can become more efficient and cost-effective. In line with the technological development, implementation aspects of OSH also need to be expanded and developed in order for it to be more efficient in preventing accidents and avoiding carelessness, as well as increasing OSH practices to the best level.

The effectuation of OSH for IR4.0 in Malaysia should adopt the existing implementation model in several developed countries such as the United Kingdom, Japan and Singapore. These countries exercise OSH practices that are considered mature and good. However, the effects of IR4.0 on the implementation of OSH in Malaysia need to be observed in detail, specifically on the interaction between man and machines, which can

pose risks. Thus, collaborative robots need to be programmed to prioritise occupational safety aspects. Apart from that, smart appliances need to be used integratively to avoid accidents and carelessness. A centralised control system with alarm, assisted by data that will increase risk assessment through accident preventive analysis, will further expedite all OSH matters. All can be well achieved if effective and comprehensive communication practice is used effectively and efficiently. Training for new employees can also be enhanced not only towards IR4.0 aspects but, more importantly

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"The IR4.0 terminology is developed from related key words in big data, physical cyber system, internet of things (IoT), robotics, Artificial Intelligence (AI) and simulations."

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is how to increase OSH practices continuously in order for it to become better. This will help in creating a safer working environment, for example, by using virtual reality glasses, scenarios derived from artificial intelligence, smart appliances and detection equipment.

The challenges to the industry in the IR4.0 era have brought along a new paradigm change that indirectly

will bring effects to decline in OSH performance and management due to full reliance on machinery. Therefore, in the implementation of OSH for IR4.0, a few challenges need to be observed, and among them are restricting risks in industrial planning, identifying effects on recruitment of new employees, avoiding re-planning requirements of equipment, and optimizing resources usage, reducing wastage and increasing performance and flexibility. This is especially clear from the aspects of the increase in interaction between work content (vagary, cycle, skills, uncertainty, exposure, and others), organisation (scheduling team, overtime, rush orders, and others), management (responsibility, communication, role, relationship, problem-solving, and others), and other factors in the organisation (promotion and increment, job security, social work value). To avoid unexpected dangers arising in the manufacturing field, for example, a more detailed and comprehensive task planning, including employee limit, need to be carried out.

With the availability of IR4.0, OSH laws and regulations also need to be more empowered. A large number of steps require industry players to assess risks, implement standard work procedures, and frequently provide training to employees to reduce accident frequency at the workplace. Apart from that, these laws and regulations will create responsibilities which portray commitment as well as audit references to be used to impose restrictions on non-complying companies.

However, for the time being, there is no one definite and clear regulation to ensure the right unification of new technologies into industrial processes. This OSH status will be dependent on corporate collaboration or isolated initiatives. OSH management system needs to be constructed in line with initiatives towards IR4.0. The model to be developed will be able to propose a general guide for managing accidents prevention, training, emergency and requirements of specific regulations for industrial activities. By definition, based on the continuous development model, its framework needs to be more flexible and, therefore, more suitable to adapt to changes brought about by Industrial 4.0. In general, Malaysia has yet to be in the era of IR4.0; however, a detailed, comprehensive and flexible preparation becomes the principal agenda and focus.

VISION

Empowering safe and healthy work practices for nation's prosperity.

DESCRIPTION:

To prosper the country and sustain it for a long-term benefit of Malaysia, steps in empowering safe and healthy work practices are required. This will ensure that each employment sector contributes continuously to the nation's development and committed in the realisation of Shared Prosperity Vision 2030 (SPV 2030).

MISION

Enhancing stakeholders strategic relations in enculturing OSH practices.

DESCRIPTION:

Enculturing OSH practices continuously requires cooperation of various stakeholders through enhancement of working relations and resource sharing. In-silo work culture need to be transformed into strategic and systematic work culture across sectors.

Goals of
2025

In achieving a more excellent level of OSH, Malaysia should strive to perform better in the OSH master plan to reflect the values that we have assigned to the well-being of Malaysians. Malaysia need to move towards achieving world-class OSH standards and striving towards zero accidents and self-regulation. From a business perspective, a safer and healthier workplace also means a more productive workplace. A good workplace environment can avoid losses in manufacturing, including employees' tardiness and absence issues that take place caused by injury and unsatisfactory occupational health complications. In a conducive working environment, employees become more confident of producing the best level of work, in fact, beyond the expectations of the employers. Based on the confidence that safe and healthy work culture can further increase the well-being of employers, employees and the country, therefore the OSHMP25 five -(5) year plan focuses efforts to reduce accident and death rates to 2.13 accidents for every 1,000 employees and 2.93 deaths for every 100,000 employees by 2025. This OSH master plan will also continue its target of increasing occupational diseases and poisoning reporting as much as 30% by 2025.

Apart from that, three new leading indicators are introduced to provide a better gauge for OSH outcomes in this country. A leading indicator, by definition, is something that provides information that assists users in responding to conditions or situations that are ever-changing and act to achieve the desired results or avoid undesirable results. The role of the leading indicator is to assist in rectifying OSH performance in the future by promoting proactive action to rectify potential weaknesses without having to let failure occur before acting.

This leading indicator will subsequently provide progress assessment in reducing industrial accidents in Malaysia. The three leading indicators are the employer's self-assessment OSH level, indicator toward implementation of OSH core programmes as well as employees and community involvement.

To realise this intention, OSHMP25 introduces seven (7) principal strategic thrusts centred on the initiative to propel solidarity and commitment of stakeholders towards OSH, which also includes the

issue of awareness. All parties need to join hands in carrying out their respective responsibilities to create a safe and healthy working environment through the application of Safety Culture. The OSHMP25 strategic thrusts are:

ST 1: Empowering OSH in the public sector.

ST 2: Reinforcing self-regulation practices in the workplace.

ST 3: Promoting OSH education and research.

ST 4: Empowering Occupational Health.

ST 5: Increase in OSH compliance in SME sector.

ST 6: Enhancement of OSH through technology; and

ST 7: Strengthening OSH in Work-Related Road Safety (WRRS), informal sectors, and future jobs.

These strategic thrusts subsequently will be further strengthened through various high-impact programs and activities which focus on the formation of a Safety Culture among employers and employees. In the efforts towards reinforcing a more comprehensive OSH, other than the commitment of employer and employee; OSHMP25 also provides a breath of fresh air for strong collaboration initiatives among agencies and responsibilities that need to be mustered by all stakeholders such as government, associations, unions, OSH professionals, competent persons, and other parties that have relationship and influence with employers and employees.

The engagement and commitment of all parties is the core to the success of this master plan which will subsequently increase the working quality of employees, increase productivity and organizational competitiveness, as well as increase the Malaysian Well-Being Index that becomes the compass to the quality of life of Malaysians.

OSHMP 2025 Lagging Indicator

DEATH RATE

To reduce the occupational death rate to **2.93** deaths for every 100,000 employees in 2025.
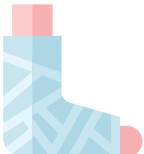
ACCIDENT RATE

To reduce the occupational accident rate to **2.13** accidents for every 1,000 employees in 2025.

DISEASE REPORTING

Increase in occupational diseases and poisoning reporting as much as 30% in 2025.

OSHMP 2025 Leading Indicator

KPI 1

OSH LEADING INDICATOR

85% of the workplace audited achieved satisfactory OSH levels.

KPI 2

EMPLOYER SELF-ASSESSMENT ON THE IMPLEMENTATION OF OSH CORE PROGRAMME

90% of the workplace which made annual self-assessment declarations have implemented the OSH core program.

KPI 3

EMPLOYEES AND COMMUNITY ENGAGEMENT

Increase of 20% of OSH NGO perception index towards the level of OSH enculturation in the organization.

2019 Occupational Accident Rate Benchmark

5.36 **	2.54	3.96	2.71	2.20
5.09	0.34	1.10	3.83	1.56

Accident rate (per 1,000 employees)

Death rate (per 100,000 employees)

** Data as of 2018

Figure 2: Countries that posed the benchmarks for occupational accident rate as of 2019[4]

[4]Korean Occupational Safety and Health Agency (KOSHA), Health and Safety Executive United Kingdom (HSE UK), Ministry of Manpower Singapore (MOM), Department of Occupational Safety and Health Malaysia (DOSH), Japan Industrial Safety and Health Association (JISHA)

OSH Master Plan Framework
2021–2025

1. To increase OSH value at par with the importance of productivity and quality.

2. To create a healthy, safe and conducive working environment.

3. To lead togetherness in safety and health for people's prosperity.

4. To ensure sustainability in occupational safety and health.

Industrial Occupational Accidents

In 2005, about 51,829 occupational accident cases were reported. Analysis showed 6.93 occupational deaths for every 100,000 employees and 5.16 occupational accidents for every 1,000 employees have occurred. In 2015, the number of occupational accidents reduced to 38,753 cases, while the occupational death rate for every 100,000 employees also reduced to 4.84, and the accident rate for every 1,000 employees reduced to 2.81. In 2018, about 35,460 occupational accident cases were reported. However, the occupational death rate was reduced to 4.14 per 100,000 employees, while the occupational accident rate was also successfully reduced to 2.4 per 1,000 employees. For 2019, the number of occupational accidents increased to 40,811 cases, while the occupational death rate for every 100,000 employees reduced to 3.83. However, the occupational accident rate for every 1,000 employees increased to 2.71.

Towards a more excellent OSH outcome and comparable with developed countries, all parties need to emphasize on principal factors that contribute to occupational accident and death rates in this country. This will subsequently be the stepping stone towards a stronger and more effective OSH.

On the 28th of February 2019, former Deputy Prime Minister Datuk Seri Dr. Wan Azizah Wan Ismail launched the National Occupational Safety and Health Policy (*Dasar Keselamatan dan Kesihatan Pekerjaan Negara* or DKKPN) during National OSH Excellence Awards Ceremony 2018. DKKPN was approved at the Cabinet-level and signed by former Prime Minister YAB Tun Dr. Mahathir Bin Mohamad on 15th January 2019. DKKPN is a part of a programme under Occupational Safety and Health

Master Plan 2016-2020 (OSHMP2020) was introduced to revolutionize methods of protecting the country's human resources.

Considering that the former Prime Minister has signed DKKPN, thus it is highly required to inculcate sustainable risk management in all workplaces to ensure a high level of OSH among employers and employees while at the same time increasing their productivity and competitiveness. Therefore, all parties can expect an obvious transformation in Malaysia's OSH to a more excellent level by 2025.

The Malaysian Government, through the National Council for Occupational Safety and Health (NCOSH), in collaboration with stakeholders, especially employer organizations and employees union, has formulated and established the National Occupational Safety and Health (OSH) Policy.

The main objective of the National OSH Policy is to enhance occupational safety and health through sustainable risk management in the workplace to protect employers and employees in Malaysia along with increasing the country's productivity and competitiveness.

The Malaysian Government acknowledges employees as the nation's most important asset by ensuring occupational safety and health, and the rights of employees are prioritized to create a safe, healthy, and conducive working environment. Thus, the Government is committed to:

i. Increase the National OSH level through various methods and approaches towards reinforcing Preventive Culture in the workplace.

ii. Supervise and enforce OSH laws at the workplace.

iii. Increase involvement and cooperation of Government agencies, employers, employees, industrial associations and unions, stakeholders through NCOSH as the country's highest tripartite body to strengthen management and governance of national OSH;

iv. Strengthen the structure of institutions for the implementation of the OSH integrated system at the national level, which encompasses policy determination, standards preparation, national OSH inspectorate, as well as research and training institutions.

v. Establish, review and update the National OSH profile to provide a comprehensive picture and for benchmarking purposes;

vi. Ensure that employers provide a workplace under its control to have a safe and healthy working system and safeguard employee welfare during work;

vii. Ensure employees are attentive to their safety and health as well as others who can be affected by their actions or absences during work;

viii. Ensure parties who are responsible for designing, manufacturing, importing, and supplying products, materials, and equipment for the use of the workplace.to ensure products supplied are safe and without health risks with precise and complete information, and to

ix. Foster collaboration and cooperation to overcome OSH issues with foreign countries and international organizations.

This policy applies to all workplaces, employers, and employees subject to Occupational Safety and Health Act 1994 (Act 514) and need to be reviewed periodically.

OSH Master Plan Outcomes
2021-2025

1. Strengthening governance through the proliferation of OSH policies and laws.

2. Empowering self-regulations among industries.

3. Transformation of a systematic OSH in education and research.

4. Empowering occupational health at the workplace.

5. Reinforcing collaboration and sharing in the aspects of technical, funds, and management system related to SME OSH practices.

6. The use of a more comprehensive technology in OSH practices.

7. Increasing OSH awareness, knowledge, and practices of Work-Related Road Safety (WRRS), informal sectors, and future jobs.

OSHMP25
Implementation Concept Model

ST1 — Strengthening governance through the inculcation of OSH policies and laws.

ST2 — Empowering self-regulation among industries.

ST3 — OSH education and research transformation.

ST4 — Empowering occupational health at workplace.

ST5 — Reinforcing cooperation and sharing in aspects of technical, funding, and management system related to SME OSH.

ST6 — Use of a more comprehensive technology in OSH practices.

ST7 — Increase in OSH awareness, knowledge and practices related to WRRS, informal sectors and future jobs.

Inner ring:
- To increase OSH values at par with the importance of productivity and quality.
- To create healthy, safe and conducive working environment.
- To lead safety and health unity for prosperity of the people.
- To ensure sustainability in occupational safety and health.

Center: **SAFE AND HEALTHY WORK CULTURE**

OSHMP25
Programmes

ST 1
EMPOWERING OSH IN PUBLIC SECTOR

Programme 1: Upholding OSH policies and laws.
Programme 2: Empowering NCOSH Functions
Programme 3: Government as OSH Catalyst
Programme 4: OSH Enforcement Transformation
Programme 5: Enhancing OSH database management

ST 2
REINFORCING SELF-REGULATION PRACTICES AT WORKPLACE

Programme 1: OSH ownership and leadership
Programme 2: Implementation of systematic self-regulation
Programme 3: Improvement of OSH best practices through intervention at workplace
Programme 4: Workers Self-regulation Readiness

ST 7
STRENGTHENING OSH IN WORK-RELATED ROAD SAFETY (WRRS), INFORMAL SECTORS, AND FUTURE JOBS

Programme 1: Enhancing awareness and alertness of OSH practices for Future Jobs
Programme 2: Enhancing awareness and alertness of OSH practices in E-hailing services
Programme 3: Strengthening Management of WRRS
Programme 4: OSH Improvement in informal sectors

ST 3
PROMOTING OSH EDUCATION AND RESEARCH

Programme 1: Increasing awareness, education and community involvement in OSH
Programme 2: OSH Competency and capacity in the workplace
Programme 3: Enculturing OSH Research and Development

OSHMP25
PROGRAMMES

ST 4
EMPOWERING OCCUPATIONAL HEALTH

Programme 1: Providing competent occupational health practitioners at workplace to increase performance and access to occupational health services
Programme 2: Comprehensive Occupational health risk management
Programme 3: Awareness and information sharing related to occupational health and diseases
Programme 4: Empowering Industrial Hygiene towards occupational quality improvement
Programme 5: Integrating occupational health risk assessment

ST 6
ENHANCING OSH THROUGH TECHNOLOGY

Programme 1: Smart workplace development centered on IR 4.0
Programme 2: Technological ecosystem development in OSH
Programme 3: OSH risk management through digital technology

ST 5
ENHANCING OSH COMPLIANCE IN SME SECTOR

Programme 1: Special Incentive for SME Sector for OSH Activities
Programme 2: Enhancing OSH management in SME
Programme 3: Enhancement of support and cooperation among agencies including special programme initiatives
Programme 4: Increase in OSH knowledge, skill and commitment

STRATEGIC THRUST

1

EMPOWERING OSH IN THE PUBLIC SECTOR

- Programme 1: Upholding OSH policies and laws
- Programme 2: Empowering NCOSH Functions
- Programme 3: Government as OSH Catalyst
- Programme 4: OSH Enforcement Transformation
- Programme 5: Enhancing OSH Database Management

STRATEGY

(1)

EMPOWERING OSH IN THE PUBLIC SECTOR

Aspects of occupational safety and health (OSH) cannot be argued anymore by employers on its importance in the implementation of every occupational activity in this country. A safe and healthy work environment will motivate Malaysians to work in harmonious and peaceful conditions. In relation to this, the country's economy will be generated more productively in accordance with the vision of making Malaysia a viable and high-income nation. The government is the principal thrust and leader in ensuring that there

is a high increase in understanding and application of OSH in this country. This can be implemented by further empowering policies and laws related to OSH in order for it to have indirectly become a way of life that does not require continuous monitoring from relevant authorities.

National Council for Occupational Safety and Health (NCOSH) can take more aggressive steps to further intensify its role in increasing the involvement and cooperation of various agencies from the public and private sectors as well as stakeholders through the input of ideas and proposals to reinforce the country's OSH management and governance.

Technological transformation through the latest innovation simultaneously changes the work practice landscape, which requires revision, changes as well as reinforcing existing policies and laws, which are the most crucial agents for change. This is intended to provide high impact to its implementation apart from ensuring that the policies and laws that are implemented are contemporary with changes in present occupational sectors.

The government needs to function as the principal catalyst to ensure the implementation of a more contemporary OSH, which is in line with the changes in occupational sectors due to the effects of the information and technological boom. The public sector is the agency capable of influencing the private sector in a robust OSH implementation in this country. Integrated collaboration among government agencies involved in OSH implementation can provide a positive impact and image to the government. OSH enforcement requires contemporary knowledge, skills, and expertise as issues involving OSH continuously change and become increasingly complex and challenging. The use of the latest technical equipment and ICT can give a positive impact on the effectiveness, activities, and costs of law enforcement. Integrated enforcement between agencies may also facilitate intensified enforcement integration. Community involvement can also make enforcement be more effective.

The comprehensive data collected can assist in forming methods of resolving and gauging the latest status of OSH implementation and enforcement. The government needs to function as the catalyst for OSH data collection to identify issues and determine corrective steps to resolve issues related to OSH.

Strategic Thrust Outcomes

1. The development and review of contemporary OSH policies and laws to overcome ever-evolving OSH issues according to current technological changes in line with international laws.

2. Increase in roles of Government, National Council for Occupational Safety and Health (NCOSH), OSH enforcement bodies, and advocates towards the establishment of OSH Centre of Excellence.

3. Establishment of OSH comprehensive data collection and dissemination system for the general public and various agencies to monitor the country's OSH progress and performance.

PROGRAMME 1

Upholding OSH policies and laws

Technological transformation through the latest innovation at once altered the work practice landscape, which requires revision, changes, as well as strenghtening existing policies and laws, as both factors, are crucial agents for change. This is intended to provide high impact to their implementation apart from ensuring the contemporaneous nature with changes in present occupational sectors.

Activities:

1.

To formulate new OSH laws in accordance with critical and effective needs in line with international laws.

2.

To review periodically the effectiveness of acts, policies, regulations and code of conduct.

Outcome:

1. The development and review of contemporary OSH policies and laws to overcome ever-evolving OSH issues in accordance with current technological changes in line with international laws.

PROGRAMME 2

Empowering NCOSH functions

A more aggressive step by the National Council for Occupational Safety and Health (NCOSH) to intensify its role in increasing the involvement and collaboration of various agencies from the public sector and private sectors as well as stakeholders through idea and proposal input to reinforce the country's OSH management and governance. NCOSH can become the catalyst for the dissemination of information to stakeholders through the strengthening of promotional activities and award presentations as an attraction to them in the implementation of OSH.

Activities:

1. To increase NCOSH function as the country's OSH activities catalyst.

2. To foster collaborative relationship with various selected principal Agencies related to OSH issues.

3. Empowering and expanding membership of organisation of stakeholders as committee that encompasses all stakeholders.

Outcomes:

1. The National Council is the country's highest tripartite body, which will help to expand participation and provide support to various parties in the efforts to further strengthen the level of OSH in the country.

2. Promotional programmes and awards presentations by NCOSH to be continued and expanded further to attract the interest of stakeholders in OSH to perform their respective roles.

PROGRAMME 3
Government as OSH Catalyst

The government needs to function as a principal catalyst to ensure the implementation of a more contemporary OSH, which is in line with the changes in occupational sectors due to the information and technological boom. The public sector is the agency that can influence the private sector in a robust OSH implementation in this country. Integrated collaboration among government agencies involved in OSH implementation can provide a positive impact and image to the government.
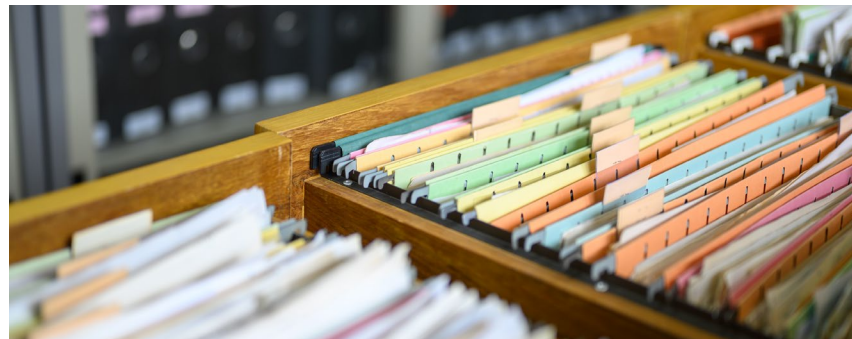
Activities:

1.
To reinforce OSH in public sectors through Chief Secretary.

2.
To include OSH criteria in procurement in accordance with the Guidelines on Contract Management 2015 and terms of company operating license.

3.
The establishment of the Centre of Excellence for OSH (COE) in the form of OSH SME staffing structure into a specific division.

4.
To continue awarding incentives and recognition to excellent employers and employees in complying with laws related to OSH.

Outcomes:

1. The public sector can serve as the platform or agent of change for the implementation of OSH by improving the efficiency of management, integrity enhancement, and quality of work.

2. The establishment of stringent conditions is the screening process that needs to be adhered to in evaluating the qualifications of those who will provide services to the government to ensure the application of OSH in all related sectors.

3. To classify the quality of service provided by government agencies through rating schemes to enable an assessment to be carried out on the execution of work and application of OSH in public sectors.

4. Sharing of relevant information by the government with other stakeholders in order to establish integrated collaboration between the government and the stakeholders.

5. A continuous collaboration chain between government and industries needs to be established.

PROGRAMME 4
OSH Enforcement Transformation

OSH enforcement requires contemporary knowledge, skills, and expertise as issues involving OSH are continuously changing and becoming increasingly complex and challenging.

The use of the latest technical equipment and ICT can impose positive impacts on the effectiveness, activities, and costs of law enforcement. Integrated enforcement between agencies can further, intensify

integrated enforcement. Community involvement can also effectuate enforcement to be more effective.

Activities:

1.
To enforce laws intensively for critical sectors.

2.
To empower OSH technology.

3.
To increase enforcement competence and knowledge.

4.
To create OSH promotional, strategic plan.

Outcomes:

1.

To increase the proficiency of punitive actions to be able to provide guidance to other stakeholders in each industry.

2.

An increase in enforcement skills, expertise, and quality needs to be carried out through relevant activities for OSH enforcement.

3.

Enforcement integration between agencies makes it more pervasive and effective.

PROGRAMME 5
Enhancing OSH database management

The comprehensive data collected can assist in designing methods of resolving and gauging the latest status of OSH implementation and enforcement. The government needs to function as the

catalyst for OSH data collection is to identify issues and determine corrective steps to resolve problems related to OSH.

" issues involving OSH continuously changing and becoming increasingly complex and challenging. "

Activities:

1. The establishment of database system at par with international system.

2. To encourage the development of OSH application.

3. To empower Virtual OSH Information Centre (VOSHIC) in OSH website.

STRATEGY 1

Outcomes:

1.

The establishment of OSH comprehensive data collection and dissemination involving the general public to monitor the country's progress and performance of OSH.

2.

Information sharing on problems related to safety and health by the general public through database platform.

3.

To empower information sharing between agencies involved in occupational safety and health enforcement.

4.

Awareness programmes on information sharing between agencies and information sharing with the general public.

CONCLUSION

The objective of this strategy is to empower the government as the principal catalyst for change and improvement of OSH implementation in Malaysia. This requires a strong joint effort between the government and every stakeholder to play their roles in making this master plan a success according to their respective expertise in order for it to be aligned with OSH technological changes at the global level. The safety and health of employees should be prioritized in order to enhance their welfare and productivity of employees.

OSHMP
(2021-2025)

STRATEGIC THRUST

2

REINFORCING SELF-REGULATION PRACTICES IN THE WORKPLACE

- Programme 1: OSH Ownership and leadership
- Programme 2: Implementation of Systematic Self-Regulation
- Programme 3: Improvement of OSH Best Practices Through Intervention At Workplace
- Programme 4: Employees Self-Regulation Readiness.

STRATEGY

(2)

REINFORCING SELF-REGULATION PRACTICES IN THE WORKPLACE

The culture of practicing proper OSH at the workplace is an approach to facilitate in improving work productivity and subsequently drive the country's economy in a stable and balanced manner. Work activities can be carried out in a coordinated and systematic manner, starting from the aspects of designing up to the carrying out of OSH daily activities. The implementation of the proper OSH activities can expedite work apart from being able to reduce and save costs related to repairs in the event of non-compliance occurrences to OSH practices. Losses at the government and company level can be reduced, loss of

> **To ensure the quality of best work practices can be implemented at all times, OSH culture and management system need to be enhanced.**

members of the society can be prevented, family life can be continued positively, social problems can be reduced, hence improving productivity. The goal of reducing accident rates can also be achieved.

Through the developed best practices, the accident reporting process can be done easily, quickly, and systematically. Response from authorities can be accomplished fast and precisely. In the efforts to uphold OSH practices and culture, it requires the involvement and determination of authorities, employers, and employees. Each party needs to experience ownership of OSH practices and strive to implement them. Implementation of self-regulation is highly effective in making OSH a common practice and culture. Employers and employees need to muster energy and effort to materialize this intention. This is because both of them are well-informed parties on the OSH requirements at their respective places.

Due to the high reliance of our country on foreign employees, their preparedness programme needs to be implemented. Foreign employees that have this OSH knowledge can perform work better as well as ensure the benefits of local society. To ensure that the quality of best work practices can be implemented all the time, OSH culture and management system need to be enhanced. The implementation of quality system practices and the active involvement of employees highly contribute to the outcome of this aspect.

OSH culture and practice ownership of each person (employer and employee), if practised simultaneously, will produce the stipulated results. This strategy is developed to further strengthen existing practices and make it an OSH culture that needs to be practiced by employers and employees. Four programs have been planned to ensure that this hope can be implemented and produce the intended outcome.
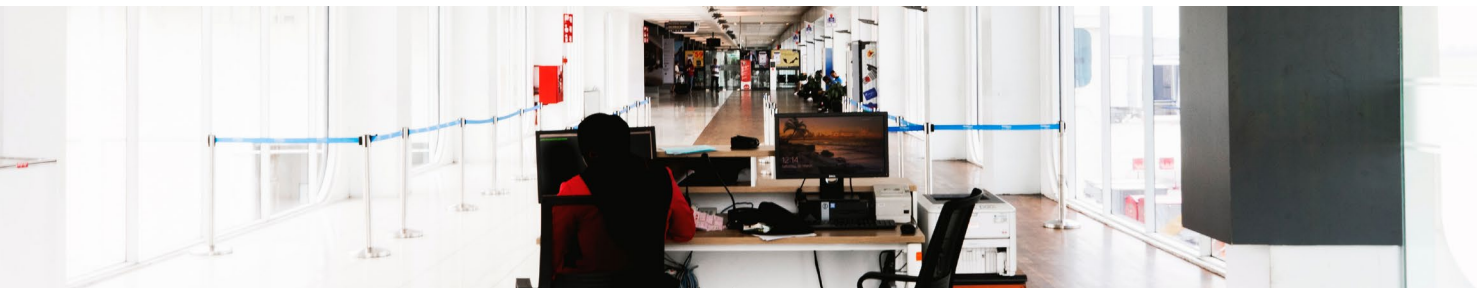
Strategic Thrust Outcomes

1. Increase in OSH ownership and leadership level by employers.

2. Strengthening a systematic self-regulation practice.

3. Producing OSH publications as a reference for employers and employees.

4. Strengthening self-regulation preparedness for employers and employees.

STRATEGY 2

PROGRAMME 1

OSH ownership and leadership

The important principle aspect of ensuring that OSH practices and enculturation is implemented at the workplace is OSH ownership and leadership by the employers themselves. With the prevalence of the sense of ownership towards OSH by employers, hence, the overall efforts toward the implementation of OSH at the workplace can be fulfilled easily and effectively. Specific financial requirements can also be fulfilled easily as the result of the agreement at all levels of committed management.

Various OSH activities can also be performed easily should the employers are committed. Employer's OSH leadership includes monitoring, assessing, and improving OSH system from time to time. Various activities can be carried out jointly with employees as planned with effective communication and harmony in a collective environment.

> *With the prevalence of the sense of ownership towards OSH by employers, hence, the overall efforts toward the implementation of OSH at the workplace can be fulfilled easily and effectively.*

Activities:

1.
To balance the elements of safety, health, quality, and productivity by employers for OSH ownership.

2.
To introduce excellent OSH practices among the highest level management in corporate policy.

3.
To increase cooperation between employers and employees through effective communication to strengthen OSH culture.

Outcomes:

1.
Employer ownership of OSH practices.

2.
Increase in OSH management efficiency by employers.

3.
Implementation of a systematic and effective OSH at the workplace.

STRATEGY 2

PROGRAMME 2
Implementation of Systematic Self-Regulation

Employers and employees are the most informed parties on the best OSH practices at their respective workplaces. They can formulate and implement the most suitable OSH strategies and programmes to suit their workplace conditions. Self-regulation practices can ensure effective implementation of OSH continuously and effectively in accordance with local requirements. All OSH activities need to be systematically recorded in order for it to be revised and improved from time to time. Such implementation will further improve the level of OSH practices and culture at the workplace.

Activities:

1.
To perform self-assessment in the organisation for current and future problems.

2.
To provide a support system encompassing easy access to information for problems related to OSH.

3.
To encourage OSH requirements to be included in government agreements, contracts, and license conditions.

Outcomes:

1.
Implementation of a more effective and systematic OSH practice.

2.
To facilitate information access and delivery related to OSH.

3.
To enhance collaboration between industrial sectors.

PROGRAMME 3

◄◆ Improvement of OSH best practices through intervention at workplace

Before OSH can be systematically and effectively implemented, a set of OSH practice standards that can be practised and encultured is needed by employees. OSH best practices for new employees need to be identified and implemented by every sector. Industrial sectors need to collaborate to produce the best set of standard practices for the use of respective sectors. The best common practices can be applied and be made as a reference for all sectors. Implementation of the best OSH practices began with the application of accident prevention practices through the design and followed by the preparation of compulsory and specific programmes according to respective sectors. Self-implementation can contribute to the effectiveness of these programmes.

> *Implementation of the best OSH practices begins with the application of accident prevention through the design (PtD)*

Activity:

1. Collection of holistic accident preventive intervention with participation of workers.

Outcomes:

1.

To increase OSH compliance at the workplace.

2.

To enhance the involvement of employees in OSH management.

3.

To reduce the accident rate and increase productivity.

PROGRAMME 4

Employees Self-Regulation Readiness

Most foreign employees brought in are those who do not have sufficient knowledge of OSH to carry out work in various industries in Malaysia. Looking into the country's reliance on these foreign employees, which is still high, has prompted the need for a programme to prepare these employees for the OSH basic requirements, especially in the aspects of hygiene, self-management, and the use of personal protective equipment (PPE). With this basic knowledge, foreign employees can carry out their work in compliance with the country's OSH best practices and directly able to reduce accident rates and increase the country's level of occupational health.

Activities:

1.

To increase the effectiveness of the existing induction course for employees and to ensure that they have basic knowledge, skills, exposure, and training of OSH in.

2.

Employees self-regulation special programme.

3.

To strengthen OSH to foreign employees management.

Outcomes:

1.

Strengthening a systematic self-regulation practice.

2.

To enhance self-regulation readiness for employers and employees.

CONCLUSION

Self-regulation practice highly contributes to the culture of right OSH practices in the workplace. Complete involvement from enforcement agencies, employers, and employees is the foundation for the strengthening of self-regulation practices as all those parties are well-knowledgeable about respective requirements in the workplace. Apart from that, the publication of OSH materials will result in the strengthening, reinforcing, and compliance of OSH practices and simultaneously reduce the accident rate and increase productivity.

OSHMP
(2021-2025)

STRATEGIC THRUST

3

PROMOTING OSH EDUCATION AND RESEARCH

- Programme 1: Increasing Awareness, Education, and Community Involvement In OSH
- Programme 2: OSH Competency and Capacity in the Workplace
- Programme 3: Enculturing OSH Research and Development

STRATEGY

(3)

PROMOTING OSH EDUCATION AND RESEARCH

STRATEGY 3

OSH education and research are important in ensuring that every employee receives adequate training and exposure to OSH apart from further reinforcing OSH research agenda that reflects the country's commitment to continue improving and increasing the existing capacity through high-quality research.

The nature of education that is sustainable and of high quality for employees will definitely require continuous efforts and full commitment to ensurethat the aspiration

for lifelong learning at OSH is achieved. Research, on the other hand, plays an important role to ensure that there is a continuous increase in quality through current OSH achievement extrapolation to see the prospect of OSH achievement in the future, the increase in high capacity human resources potential to implement OSH in every working period, as well as refining restrictions, constraints, and weaknesses that exist in sustaining the country's OSH agendas. Advanced research guarantees a viable and dynamic OSH agenda.

OSH education and research, in fact, are inseparable and complement each other. Quality education will be able to provide notable research findings with regard to existing OSH practices that are formed from a series of systematic education and training for OSH. Meanwhile, quality research will ensure that acquired data truly reflects existing realities in the country's OSH status-quo.

Strategic Thrust Outcomes

1. Increase in the number of programmes, training, and engagement of OSH involving prospective employees, employees, employers, and communities, including NGOs.

2. Establishing and producing groups of competent OSH implementers, coaches, and professionals.

3. Increase in the quantity and quality of OSH research that is focused, comprehensive, innovative, and produces a systematic method or quality product.

PROGRAMME 1

Increasing awareness, education and community involvement in OSH

OSH awareness and education are important to ensure that all employers and employees attain sufficient knowledge and skills on OSH in order to establish good OSH practices at all levels, including elementary, pre-school, and kindergarten. Schools can be encouraged primarily to inculcate OSH values to students in subjects such as Technological Design, and skill subjects as well as co-curriculum activities through clubs and societies related to OSH. At the same time, institutions of Higher Education can undertake similar steps in educating new students to understand and prepare themselves to practice OSH upon entering the working world.

Some of the activities were implemented in the previous OSH Master Plan; however, it is worth to be continued, which is beneficial for the continuity of the nation's OSH agenda.

Activities:

1.

To inculcate OSH basic training in schools and educational institutions for prospective workers.

2.

To enhance OSH continuous learning for workers.

3.

To enhance awareness related to OSH through OSH management experience sharing in all organisations.

4.

To enhance community involvement in safety and health to general public through social media or whatever media.

While in the context of the working world, it is important for employers to plan professional development programmes regarding OSH for employees. This includes training employees in eliminating unsafe practices during work and moving towards best practices in OSH. Changes in more positive behavior in OSH aspects, whether among employees or employers, are the most anticipated outcome for a sustainable culture of OSH at all times. This is a vital essence in realising the life-long learning concept, which is idiomatically expressed as seeking knowledge from the cradle to the grave. The role of mass media and social media is becoming significant, more so for young employees who are the main users of social media. Specifically, online platforms that can become the best means, such as YouTube, facebook, Instagram, and Twitter in promoting OSH values for employees.

OSH is also important to the highest level of management cluster in an organisation. Organisation leadership needs to be exposed to the importance of placing OSH as the organisation's crucial agenda, considering that they have the authority and capacity to plan and approve OSH funds to the organisation. Thus, organisation leaders are highly expected to make certain the development of effective OSH leadership at the workplace.

Outcomes :

1.

Increase in awareness of the importance of practising OSH at all working hours to guarantee the safety and health of everyone.

2.

Increase in the quality of OSH education at all levels of education: pre-school, school, university, and skill and technical colleges, as preparation to produce employees skilled in the aspects of OSH.

3.

Professional development training on effective OSH to train employers and employees to improve existing OSH practices.

4.

Increased understanding of OSH among community members.

STRATEGY 3

PROGRAMME 2
«◆OSH Competency and capacity in the workplace

OSH requires members, employees, and especially employers, that possess high professionalism. This includes competency in planning, managing, operating, implementing, and assessing OSH agendas. Therefore, it is important to form a group of OSH members that truly possess professionalism in carrying out work. This group of OSH professionals is surely the result of a series of systematic, quality, and high-impact OSH training and education.

The role of this group, in general, is to ensure that there is an increase in work quality related to OSH by becoming a mentor to other members who have yet to achieve the expected professionalism. Thus, employees competency and capacity on OSH are exigently needed to be developed. Some of the activities have been and are still being carried out by DOSH, therefore, it can be continued while several other activities are also proposed.

> *it is important to form a group of OSH members that truly possess professionalism in carrying out works.*

Activity:

1. To increase the number, competency, capacity and effectiveness of Competent Person and groups of OSH professionals.

Outcomes:

1.

To form groups of special OSH professionals at various levels.

2.

To play the role of OSH reference experts to OSH professional groups.

3.

To provide continuous professional development training to OSH professional groups.

4.

To implement assessment and monitoring systems for OSH trainers.

STRATEGY 3

PROGRAMME 3
Enculturing OSH Research and Development

Research plays a critical role in catapulting the country's OSH agendas and becomes the country's development catalyst, especially in the direction of becoming a developed nation. Advanced research and development, which centred on clear objectives to strengthen the country's OSH agenda, will be able to function as solutions to various OSH issues. Advanced research will definitely require elements that can fulfil the country's current requirements, especially high technology in the era of Industrial Revolution 4.0 (IR4.0).

Elements such as data analytics, artificial intelligence, and the internet of things are today's civilization requirements that require a boost of new knowledge from researchers. This advanced research will steer the nation's OSH agenda to a higher and modern level in line with today's world development.

Activities:

1.

To include OSH as a prioritised field in the country's research and development framework.

2.

To coordinate OSH research activities for all universities/ research centres.

Outcomes:

STRATEGY 3

1.

Generating high technology through advanced research by the academia, and industrial researchers.

2.

Generating solutions for all issues that impede the country's OSH agenda, such as unsafe and unproductive working culture.

3.

Generating the latest OSH guidelines and policies for high-risk sectors such as manufacturing and construction.

4.

Generating OSH best practices documentations through case studies on industry and organisation that practices OSH sustainably and committedly.

5.

Formulation of an integrated digital system in connecting various parties involved in the usage of the latest technology such as the internet of things.

CONCLUSION

A high quality OSH education and research will guarantee the survival of the country's OSH agendas, as its nature is capable of providing a longer period of returns. Investments in OSH education and research have never been unprofitable, as a matter of fact, they should be enhanced in order to create committed employers and employees in realising OSH agendas toward sustainability of the nation's occupational sector. Commitment towards human capital development needs to be continuously strengthened in ensuring employers and employees continuously attain sufficient knowledge and skills for practising OSH, which is effective in daily work. This can be achieved through an earnest attitude that is eager to continuously improve occupational safety and health quality. Research, in fact, will continue to steer the sustainability of the country's OSH agendas by adapting the latest technological elements relevant to the Industrial Revolution 4.0.

STRATEGY

3

STRATEGIC THRUST

4

EMPOWERING OCCUPATIONAL HEALTH

- Programme 1: Providing competent occupational health practitioners at the workplace to increase performance and access to occupational health services
- Programme 2: Comprehensive occupational health risk management
- Programme 3: Awareness and information sharing related to occupational health and occupational diseases
- Programme 4: Empowering Industrial Hygiene towards occupational quality improvement
- Programme 5: Integrating occupational health risk assessment

STRATEGY

(4)

EMPOWERING OCCUPATIONAL HEALTH

The Sustainable Development Goals introduced by United Nations anticipates all countries, including Malaysia, to fulfil the 19 goals established commencing from 2016 until 2036. The third goal, which is "good health and well-being", and the eighth, which is "good working environment," and economic growth are closely related to occupational safety and health agenda. Considering that people contribute to economic sector uses at an average of about one-third of their daily time at the workplace, therefore, the physical and mental capacity of employees, including workplace conditions have significant effects on health equity.

In general, conducive working conditions indirectly provides social and status protection for employees, other than protection from physical and psychosocial hazards, and subsequently contribute to positive health. According to World Health Organization (WHO), health or disease complications related to the occupation causes economic losses in view of the 4.6% decrease in GDP in most countries.

Employees have the risk of injury and diseases caused by exposure to various hazards at the workplace. For example, chemical hazards, physical hazards, biological hazards, ergonomic hazards, and psycho-social hazards. This situation can further detriment existing health complications suffered by employees.

In 2018, WHO reported that about 885,000 deaths were caused by occupational diseases and mental disorders, where 53.3% were caused by occupational cancer, 43.4% by occupational lung disease, 2.3% by mental disorders, and 0.9% by the occupational musculoskeletal disorder. Due to this, those with the high-risk occupation needs health services to assess and reduce exposure to occupational risks, including medication monitoring for diseases and injury for early detection purposes that are related to occupation.

In developed countries, cases of occupational disease reporting are comparable with industrial accident reporting. Due to this, balanced preventive measures for safety and health have been implemented.

The situations faced by most developing countries, including Malaysia are different, where the number of occupational diseases and poisoning reporting is still at a relatively low level. Nevertheless, a 40% increase in occupational diseases and poisoning reporting was recorded from 2016, which about 5,960 reporting cases, until 2019, which saw 9,860 reporting cases.

Among the contributing factors to the low reporting numbers includes difficulty to diagnose diseases due to lack of competent person, lack of facilities to conduct tests and analysis due to lack of cooperation from related agencies, including the level of awareness which is less encouraging among medical practitioners, company highest management, and employers on duty to report occupational diseases and poisoning.

The nature of issues related to occupational health, for example, from the

aspects of chemical exposure, air quality, and work pressure is to broad. It requires highly close and incisive coordination between the government, industry, and OSH organization. Malaysia also needs to apply a more systematic reporting system as well as prioritise all efforts to address occupational health risk management more comprehensively and identify new hazards related to occupational health to be managed in a more effective manner.

Various OSH programmes such as law enforcement, standards-setting, and promotions related to occupational health and industrial hygiene have been implemented in previous OSH master plans, and proved to have provided a significant impact. Therefore, these programmes need to be continued in the latest OSH master plan with continuous improvements.

Strategic Thrust Outcomes

1. Increase in occupational health services implementation as well as expertise capacity, competency, role, and responsibility of occupational health practitioners at workplace encompassing Occupational health and Industrial Hygiene.

2. Improvement in occupational health risk management at the workplace comprehensively with emphasis on preventive measures, including preventive concepts through design.

3. Strengthening awareness of occupational health and occupational diseases through a more aggressive and comprehensive information sharing by leveraging mainstream and alternative platforms.

4. A more comprehensive and effective empowerment of Industrial Hygiene in increasing occupational quality.

5. Occupational health risk assessment integration towards a more comprehensive risk assessment and control.

PROGRAMME 1

Providing competent occupational health practitioners at the workplace to increase performance and access to occupational health services

Occupational health services are supported by occupational health professionals consisting of Occupational Health Doctor (OHD), Occupational Health Nurses (OHN), Occupational Health Hygienist (OHyg) and Safety and Health Officer (SHO). An increase in professional roles and expertise in occupational health will indirectly increase health services at the workplace.

Activities:

1. To provide laws related to Occupational Health Services at Workplace.

2. To identify registration requirements of Occupational Health Practitioner as Competent Person under DOSH.

Outcomes:

1. Increase incompetency, and capacity, including the function of Occupational Health Practitioner in providing health services.

2. Empowering Occupational Health Practitioner's competency and capacity.

PROGRAMME 2

Comprehensive occupational health risk management

STRATEGY 4

According to Department of Statistics Malaysia, there will be 15 million workforces engaged in various sectors in our country in 2020. These groups have the risk of contracting diseases caused by the nature of their occupation at the workplace, which exposes them to five (5) main hazards, which are chemical, physical, ergonomic, and psycho-social. All the said hazards are capable of causing injuries and diseases if not managed well and effectively. Risk management consists of a framework and process that enable an organization to comprehensively manage risks effectively and systematically. Positive measures on potential or identified occupational health risks should be seriously considered by organizations apart from the need to understand and undertake to control any possibilities of risk from occurring that might affect the delivery of services of an organization. Therefore, an implementation plan in avoiding occupational health risks comprehensively by an organization will be able to overcome threats of occupational diseases risks and focus on potential risks to occur.

Activities:

1. To increase well-being of workers in aspects of occupational health.

2. To manage occupational health risks based on the concept of Prevention through Design (PtD).

Outcomes:

1.

Development of Guidelines and Code of Conduct which emphasises occupational health risk preventive measures at the workplace.

2.

Development of well-being index/element at the workplace to be applied correspondingly.

3.

Comprehensive application of prevention through design concept for occupational diseases risk management.

PROGRAMME 3

Awareness and Information Sharing Related to Occupational Health And Occupational Diseases

Awareness of occupational disease risks among employees needs to be extended by collaboration with mass media, especially in the use of social media.

Awareness of occupational diseases risk among employees needs to be extended by collaboration with mass media, especially in the use of social media. Apart from that, awareness and information-sharing programmes on Industrial Occupational Health and Hygiene need to be further enhanced for employees in SMEs sectors and foreign employees. To ensure that the retrieval process on the relationship between the type of occupation and occupational diseases can be established, thus, a detailed, comprehensive, centered, and complete database system is highly required.

STRATEGY 4

Activity:

1. To conduct promotions on issues of occupational health and diseases.

Outcomes:

1.

Establishment of collaboration with mass media for the purpose of providing occupational diseases risk awareness to employees in general.

2.

Sharing of occupational diseases cases and industry best practices in implementation and identification of occupational health hazards and diseases at the workplace.

PROGRAMME 4

Empowering Industrial Hygiene towards occupational quality improvement

STRATEGY 4

The absence of an effective and timely intervention system will fail all the efforts toward the goal of increasing Industrial Hygiene to the targeted level. Therefore, a simple, cheap, and concise intervention system accompanied by a strong support system needs to be established at the workplace. The previous SOHELP programme was a high-impact Industrial Hygiene programme, and now the SOHELP Do It Yourself (SOHEL DIY) programme has been introduced where employers are required to conduct self-regulation programmes based on the provided SOHELP DIY Guidelines. The SOHELP DIY programme needs to be further expanded with the assistance of associations, conglomerate companies, and workplaces that have achieved the level of excellence or are recognised as such in the conventional SOHELP programme.

Activities:

1.

To provide and implement a comprehensive and effective intervention system at the workplace.

2.

To extend SOHELP DIY implementation, including other assessment methods.

3.

To encourage Industrial Hygiene Management (e.g., Ergonomics, Noisiness, Confined Spaces, and Chemicals) at the workplace.

Outcomes:

1.

The establishment a specific and systematic intervention system for each different type of hazard and risk to be effectively resolved.

2.

Self-regulation SOHELP DIY.

3.

The creation of a detailed system for facing emergency situations caused by industry/ workplace with the use of hazardous chemical risk mapping.

PROGRAMME 5

Integrating occupational health risk assessment

Health Risk Assessment (HRA) is one of the basic components of specific medical, which assesses a person's health comprehensively and the possibilities of contracting specific diseases. The improvement of HRA needs to be carried out by conducting gap analysis on all current assessment methodologies, developing standard guidelines and able to be used by industries throughout the country by involving Occupational Health professionals and developing standard education syllabus related to HRA for training and competency programme by Competent Person.

STRATEGY 4

Activity:

1. To review and improve occupational health risk assessment that encompasses all health hazards at workplace (physical, biological and psychosocial) to be applied by all industries involving OH practitioners as members of HRA assessor team.

Outcomes:

1.

Development of standard HRA guidelines and syllabuses for industry use throughout the country.

2.

Establishment of special recognition for competent professional Occupational Health groups.

3.

Enforcement of Occupational Health as requirements in industrial contract management.

CONCLUSION

In conclusion, the objective of strategy 4 is to empower Occupational Health at various levels of society, especially in ways to increase assessment, reporting, and management among employers, employees, and OSH practitioners. Apart from that, Occupational Health data repository development that collects data of employees related to Occupational Health will be able to produce a detailed and comprehensive database system.

OSHMP
(2021-2025)

STRATEGY 4

STRATEGIC THRUST

5

ENHANCING OSH COMPLIANCE IN SME SECTOR

- Programme 1: Special Incentive for SMEs Sector For OSH Activities
- Programme 2: Enhancing OSH Management in SMEs
- Programme 3: Enhancement of Support And Cooperation Among Agencies, Including Special Programme Initiatives
- Programme 4: Increase in OSH Knowledge, Skill, And Commitment

STRATEGY 5

STRATEGY

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ENHANCING OSH COMPLIANCE IN SMEs SECTOR

The SMEs sectors constitute almost 97 to 99% of the overall total of business firms in Malaysia contributes almost 36% of GDP and is expected to increase to 41% by 2020[8]. The continuous growth of SMEs contributions to the GDP shows the importance of this sector in the Malaysian economy. SMEs have also been reported to contribute between 30 to 50% of accident rates at the workplace[9]. Although SMEs constitute almost 99% of the overall total of firms and increase in GDP, the OSH practices in this sector receive lower attention among OSH practitioners and researchers in Malaysia compared to big-sized firms. Audit findings conducted by DOSH on 3,241 SMEs factories in 2019 showed that weaknesses in OSH regulations compliance are the main factor that contributes to accidents in the workplace.

In Malaysia, SMEs category is based on two criteria which are the number of full-time employees and the total annual sales (in Malaysian Ringgit). For example, SME is categorized as micro when having a total number of employees less than five (5) persons or total annual sales less than MYR300,000; the small category having a total number of employees between 5 persons to less than 75 persons or a total of annual sales between MYR300,000 to less than MYR15,000,000; while the medium category has a number of employees between 75 persons and less than 200 persons or the total annual sales between MYR15,000,000 and less than MYR50,000,000[10].

The two main factors often mentioned in literature studies on OSH practices problems in this sector are lack of funds and lack of technical expertise[11,12]. DOSH formed Small Medium Industry and Non-Manufacturing Sector divisions in 2014 to promote and provide exposure to OSH practices in these sectors. DOSH has also launched a special strategic plan for this sector from 2016 to 2020. This strategy is developed to improve previous programmes, and to drive this sector to be more competitive and sustainable despite facing financial problems and a lack of technical experts.

> *Audit findings conducted by DOSH on 3,241 SMEs factories in 2019 showed that weaknesses in OSH regulations compliance are the main factor that contributes to accidents in the workplace.*

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[8] Small and Medium Enterprises (SMEs) Performance 2018, Department of Statistics Malaysia, July 2019

[9] Implementation of OSHMP 2020, International Policy and Research Planning Division, Department of Occupational Safety and Health, Malaysia

[10] Occupational Safety and Health Strategic Plan in Small and Medium Enterprises (SMEs) 2016-2020, Department of Occupational Safety and Health, Malaysia

[11] Zulkifly et al. (2018)" Workplace Safety Improvement in SMEs Manufacturing: A Government Intervention", International Journal of Science and Technology, 4(2) 27-3

[12] Masi et al, (2014)" Developing, Implementing and Evaluating OSH Interventions in SMEs: A Pilot, Exploratory Study", International Journal of Occupational Safety and Ergonomics, Vol 20, no 3, pp. 385- 405

◀◆ Strategic Thrust Outcomes

1. Creation of special incentives, including tax exemption proposals related to SMEs OSH practices activities.

2. Improvement of OSH practice management system, especially for SMEs sectors.

3. Strengthening collaboration and expertise sharing among various public and private agencies in the form of training and OSH regulations compliance support for SMEs.

4. Increase in knowledge, skill, and commitment to OSH practices among employers and employees of SMEs.

PROGRAMME 1

◀◆ Special Incentive for SMEs Sector For OSH Activities

The two main factors based on literature studies on problems often faced by SMEs are lack of funds for OSH activities and lack of resources for technical expertise. The government, through various public and private agencies, needs to provide special funds for OSH activities and also provide tax incentives when SMEs companies purchase equipment related to OSH activities. Major companies can receive tax incentives when assisting OSH activities for SMEs companies under the relationship as chains of manufacturers and customers. Local authorities can also play the role of including OSH activities in the manufacturing requirement for business license approval.

Activities:

1.

To provide government and private specific funds and incentives for SMEs sector.

2.

To promote allocation of tax exemption by government to SMEs for purchase of basic and PPE equipment.

3.

To encourage private sectors to provide incentives to empower OSH in SMEs.

Outcomes:

1.

Establishment of special funds for OSH activities by various public and private agencies.

2.

Establishment of collaboration between various agencies for tax incentives and other related incentives.

STRATEGY 5

PROGRAMME 2
Enhancing OSH management system in SMEs

In 2018, DOSH developed OSH management system implementation guidelines for SMEs. OSHMS implementation for SMEs companies is still at a lower stage and needs to be increased in the future. Collaboration of various parties from government and private agencies for the success of the implementation of the management system needs to be strengthened. Associations representing SMEs need to act more proactively in establishing collaborative relationships between the government and SMEs companies. SMEs OSH management system can be integrated with the 5S system to improve OSH system and productivity system of SMEs companies. A good collaboration relationship between various agencies and OSH and 5S system integration can increase OSH practices and the productivity of companies. Collaboration between institutes of higher education, associations, and SMEs companies in developing and conducting risk management, especially to identify hazards and risk estimation, needs to be further enhanced.
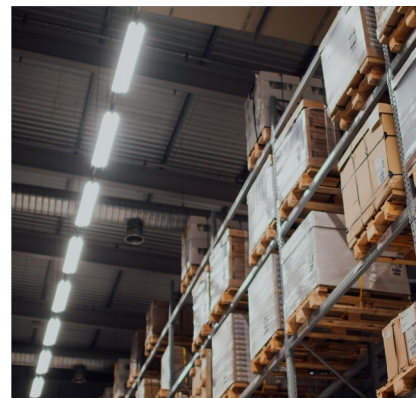
Activities:

1.

To strengthen OSH Management methods through SOLVE 4 SMEs programme (Stepwise OSH Level Verification Enhancement for SMEs).

2.

To increase OSH compliance at the workplace in SMEs sector.

3.

To encourage best practices development among SMEs.

4.

To increase OSH compliance among SMEs.

Outcomes:

1.

Strengthening implementation of SME OSH management system guidelines.

2.

Integrated SMEs OSH management system with 5S productivity management system.

PROGRAMME 3

◀◆ Enhancement of support and collaboration among agencies, including special programme initiatives

Two main factors why SMEs did not possess a commitment to OSH and resulted in the increase of accidents are lack of financial funds and lack of technical expertise. Lack of financial funds issues has been discussed in Programme 1, which is creating special funds for OSH practices in SMEs. In this programme that touches on issues of lack of OSH technical expertise in SMEs, responsibilities among SMEs companies, government, and private agencies need to be mustered together.

Existing programmes such as OSH coordinators that have the role of responsible persons in OSH implementation need to be propagated. Collaboration between OSH and local authorities in conducting joint activities (example: training, enforcement, Promotions) need to be increased. DOSH and local authorities can provide local community experts for training and negotiation activities to improve the OSH system under the supervision of local authorities. Coaching programs such as mentor-mentee and OSH practices coordination involving various agencies such as SMEs, DOSH, local authorities, and SMEs companies need to be improved.

Activities:

1.

To encourage OSH support programme among SMEs industries through coaching and support among OSH practitioners.

2.

To organize collaboration between related parties for the enforcement of OSH regulations among SMEs.

3.

To develop special programmes at sectoral level for dominant hazard management. (Generic RA).

Outcomes:

1.

Strengthening collaboration and support among SMEs companies, DOSH, local authorities, SMEs associations, and SMEs Corp.

2.

Establishment of compliance support and technical expert preparation programmes at local one-stop centres involving local authorities.

STRATEGY 5

PROGRAMME 4

❮❯ Increase in OSH knowledge, skill, and commitment

The top management of companies still view OSH practices as an encumbrance and escalating the financial operation cost of the company because they are still endeavoring to provide physical equipment such as raw materials preparation, equipment purchasing, increasing sales, and this has created issues involving human resources and subsequently OSH practices being overlooked. Therefore, this programme is aimed to provide knowledge and education at various levels in the organization, from top management to employees. Knowledge, skill, and competency are required to identify hazards and assess risk for appropriate control measures can be taken. To achieve programme outcomes, the government, through public and private agencies, need to collaborate in providing activities to increase the knowledge and skill of OSH. The college community can provide OSH skill training at respective local authorities.

At a national level, the establishment of SMEs OSH academy can act as the secretariat to coordinate training and skill activities based on industry sector and size. This SMEs OSH academy can act as a one-stop centre for the integration of other management systems such as quality and productivity to improve the operations of SMEs companies to be more sustainable and competitive.

Activities:

1.

To increase access to training and tutor centres for the purpose of increasing OSH knowledge, skill, and commitment among SMEs.

2.

To increase OSH-C compliance among SMEs.

3.

To strengthen OSH awareness and implementation equivalent to the aspects of quality and productivity.

4.

To organize Coffee Talk for SMEs operators.

Outcomes:

1.

Increased knowledge, skill, and competency among employers and employees.

2.

Increased quality training effectiveness with the cooperation of various agencies such as community college and SME OSH academy.

STRATEGY 5

CONCLUSION

Representing the majority (98.5%) of the business population with a contribution of 38,3% to overall GDP, SMEs in Malaysia are definitely the most important sector in driving the country's economy. Among the main issues often faced by the SMEs sector in Malaysia are financial sources problems, technical inadequacies, and complications in the management of the company. In tackling these issues, strategies, programmes, and activities have been specially developed to increase and intensify OSH practices in SME sectors for the next five years from 2021 to 2025. A policy framework that encompasses support reinforcement and collaboration relations between various agencies and organizations will be the main and critical essence in implementing strategies and programmes that have been planned. While enhancing OSH skills, knowledge, and commitment among SMEs, employees will be further intensified as one of the activities that will be continued through training, seminar, and workshop. The proposed programmes and activities will provide a safe and healthy environment as well as become a new paradigm shift towards a more proactive OSH for SMEs sector.

STRATEGIC THRUST

6

ENHANCING OSH THROUGH TECHNOLOGY

- Programme 1: Smart workplace development centred on IR 4.0
- Programme 2: Technological ecosystem development in OSH
- Programme 3: OSH risk management through digital technology

STRATEGI

(6)

ENHANCING OSH THROUGH TECHNOLOGY

Occupational safety and health (OSH) can be further enhanced by utilizing various state-of-the-art technology which is becoming vastly available in the market. The use of state-of-the-art technology is not merely benefited from technical aspects, such as the use of more sophisticated and safe machines, but also from various other aspects. The use of state-of-the-art technology, if applied correctly, will increase OSH effectiveness in all aspects. Information management, risk assessment, monitoring of employees and workplace conditions, especially at a high-risk workplace, and sharing of standard operating procedures, including training, can be conducted more efficiently, faster, and easier.

Although the use of state-of-the-art technology will incur high costs at the preliminary stage, the long-term costs such as injury costs, the decline in morale and confidence of employees, and loss of productivity are expected to reduce and assist in balancing the capital required for the use of technology in OSH.

A high commitment is expected, especially from employers, to the success of this strategy. The government can also contribute by providing incentives, rewards, or tax reductions to encourage companies to use state-of-the-art technology in occupational safety and health.

The application of state-of-the-art technology will allow the prevention of accidents to be carried out from an early stage. Unsafe work conditions and human error can be reduced if technology is applied extensively for OSH and simultaneously reduces accident, injury, and death rates.

Strategic Thrust Outcomes

1. Increase in acceptance and participation of industry players in the use of technology for OSH management, including risk management and technological ecosystem development.

2. Increase in OSH implementation system effectiveness with the aid of state-of-the-art technology in line with Industrial Revolution 4.0 (IR4.0).

STRATEGY 6

PROGRAMME 1
«•Smart Workplace Development Centred on IR 4.0

Unsafe work practices and conditions remain a major issue in OSH field. Both issues play a principal role in accidents in the workplace, as stipulated in the Domino Theory. The development of a smart workplace centred on technology is believed to be able to reduce a major part of this problem.

Workplace monitoring and inspection, especially those of high risk, can be more effective and efficient by using state-of-the-art technology such as drones. Proactive prevention can be implemented more effectively by monitoring work practices and workplace conditions.

For example, smart and technological personal protective equipment such as safety helmets equipped with devices to monitor movement, continuous donning, exposure to hazardous chemicals, or monitoring heat stroke experienced by employees.

The government, through the Department of Occupational Safety and Health (DOSH), acts to encourage companies
to develop a smart workplace by providing exposure related to OSH technology through the organization of expos as preliminary introductory steps.

Activities:

1.

To advice companies to use state-of-the-art technological equipment (IR4.0) for monitoring and inspection purposes of high-risked workplace/plant.

2.

To advice companies to use state-of-the-art technology to ensure workers are not exposed to safety and health risks.

Outcomes:

1.

Monitoring of unsafe conditions and work practices can be conducted easily and effectively.

2.

Increase in productivity of employees as a result of safer conditions and high morale.

STRATEGY 6

PROGRAMME 2

## ◀●▶Technological ecosystem development in OSH

Technological ecosystem refers to the comprehensive application of OSH by using technology starting from the supply stage to the end-user.

Most companies concentrate only on productivity and cost-effectiveness improvements solely in the production division, whereas OSH values need to be implemented at the preliminary stage of product design which involves third parties such as designers, suppliers, and sellers before reaching product buyers. This is capable of providing added value and a positive reputation to the said company.

In doing so, technological ecosystem elements can be applied through the use of information digitalization and the Internet of Things. It is capable of making safety and health fields more viable through information sharing and information access systems, documents, risk assessment, and a more effective procedure in line with world technological

advancement. Strategic coordination will assist in facilitating knowledge and expertise sharing between major and small companies, equipment sharing from the organization that has various state-of-the-art technological equipment, and acquiring expertise from universities and others.

The Government, through DOSH, becomes the catalyst and promoter of state-of-the-art technologies in occupational safety and health in the company by introducing state-of-the-art technology through awareness campaigns, knowledge expansion, and encouraging the use of applications.
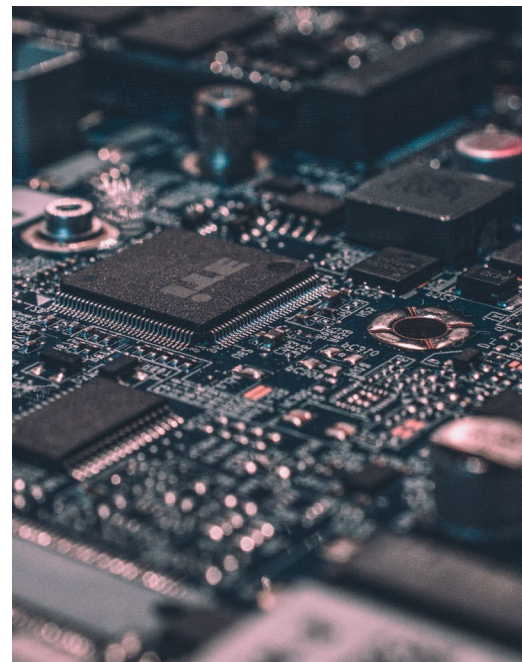
Activities:

1. To advice companies to expand knowledge, skills and expertise related to OSH through strategic coordination between universities, industries, and communities.

2. To advice industries to develop new technological applications to assist employers in managing OSH.

Outcomes:

1.

A more comprehensive collaboration between various parties in propagating the use of technology for OSH.

2.

The application of state-of-the-art technology for use in occupational safety and health fields is capable of making a company more viable.

PROGRAMME 3
OSH risk management through digital technology

Information gathering and risk assessment can be done faster and more effectively with the use of digital technology. This can be easily seen when Covid-19 plagued the country where the government utilised the MySejahtera application to detect the movements of infected members of the general public in a faster and more effective manner. Prevention of accidents can be done more effectively by expanding the use of digital technology concept in information and risk management for all parties, especially companies and suppliers, as explained in the Six Strategies of Programme 2.

However, limited knowledge, skill, and equipment hinder technological development in OSH. Active involvement of employers is highly required in planning budget, product development in the preliminary stage which involves the use of safer materials, machinery that poses low-risk to employees up to manufacturing processes that can minimise employees' risk at the workplace. It is important when

risk analysis is conducted able to justify the need for state-of-the-art technological engineering control. Engineers need to be knowledgeable and skilled in proposing technologically designed control to overcome safety issues more effectively. This design not only involves those in the machinery section during operations but as early as possible during designing work station, purchase of machines, and all facilities at the workplace.

The application of state-of-the-art technology will enable accidents prevention to be done at a preliminary stage. Unsafe work conditions and human error can be reduced if technology is applied extensively and subsequently reduces accident rates.

The government, through DOSH acts as the catalyst of technological awareness and can use the myOSH medium or something similar to it for the purpose of expanding information sharing and implementation of OSH requirement principles.

> *The application of state-of-the-art technology will enable accidents prevention to be done at the preliminary stage.*

Activities:

1. To create/improve OSH requirement principles management system digitally.

2. Upskilling OSH practitioners using digital system (either existing system provided by DOSH or self-created) for information sharing regarding OSH for enforcement authority monitoring specifically the high-risk sectors.

Outcomes:

1.

OSH requirement principles information management which is more efficient and effective than using digital technology.

2.

Proactive risk early detection can form an effective, safe work culture.

CONCLUSION

Strengthening OSH through technology requires three approaches to make it a reality. Programme 1, emphasises OSH technological usage in the workplace, especially in the high-risk workplace. It will not only create a safer workplace, but also capable of ensuring that employees acquire a good level of physical capacity and health.

For Programme 2, to ensure technology is practised extensively in OSH, an ecosystem needs to be created where various parties support one another. Collaboration needs to be formed between industries (as the principal role that can provide knowledge input, teaching, and best practices), universities (as the system that has the expertise and ability to support technological knowledge to grow), communities (as the general public that understands and indirectly support efforts related to OSH), and DOSH (as the facilitator for establishing collaboration).

Programme 3 emphasizes the use of digital technology to facilitate the gathering and assessment of information related to OSH. Risk detection at the workplace can be detected earlier with the availability of the digital system.

Even though the use of technology in OSH might involve major expenditure, it will still provide long-term profits as a result of cost reduction caused by accidents, property damage, and death.

OSHMP
(2021-2025)

STRATEGIC THRUST

7

STRENGTHENING OSH IN WORK-RELATED ROAD SAFETY (WRRS), INFORMAL SECTORS AND FUTURE JOBS

- Programme 1: Enhancing Awareness and Alertness Of OSH Practices For Future Jobs
- Programme 2: Enhancing Awareness and Alertness Of OSH Practices In E-Hailing Services
- Programme 3: Strengthening Management of Work-Related Road Safety (WRRS)
- Programme 4: OSH Improvement in Informal Sectors

STRATEGY 7

STRATEGY

(7)

STRENGTHENING OSH IN WORK-RELATED ROAD SAFETY (WRRS), INFORMAL SECTORS AND FUTURE JOBS

Road accident is a serious issue. World Health Organization (WHO) projected that road accidents will become the fifth-highest cause of death in 2030 compared to its ninth highest position in 2004. While the accident rate at the workplace reduces, accidents involving work-related road safety (WRRS) increase.

WRRS consist of networks of road, users, and vehicles of various types and sizes. The population that is exposed includes all users using work vehicles such as drivers and passengers of trucks, buses, courier vehicles, rental cars, emergency services vehicles, cars, two-wheeled vehicles, and other light vehicles. Most of these employees use the vehicle as "equipment" during work, but their type of job does not necessarily be "drivers." Although the scope and definition of law are different according to the jurisdiction, which often relates to workmen and insurance compensation schemes, the significant accident risk involved in travelling to and from work also needs to be considered

as one of the main elements in WRRS. DOSH does not impose its jurisdiction on accidents involving travelling to and from work and does not include in its data collection what is related to accident and death rates. However, the generic concept in OSHA Act 1994 remains relevant with WRRS, especially the duty of care that makes employers hesitant to ensure that Section 15 (1) "Every employer and self-employed person have the duty to ensure, as far as it is practicable, the safety, health, and welfare at work of all his employees"[13]. This provision has been used with the opinion that it is the responsibility of employers to provide a safe working environment and should be extended to all workplaces, including motor vehicle that is used to travel to and fro. Furthermore, road accidents involving employees in the "gig" economy continue to rise in line with the rapid development of the "gig" economy in Malaysia. The gig economy is a job market based on short-term contracts or freelance work carried out by individuals driven by digital technology.

The workforce in the gig economy in Malaysia grew to 31% in 2017, surpassing the growth in the conventional workforce.

The rapid development of the "gig" economy has brought about the present work digitalization era through a digital platform.

Digital platform employees are divided into two categories which are "cloud work" and "gig work". "Cloud work" are tasks that can be performed through the internet, while "gig work" are services that are provisioned through a digital platform and directly transmitted to clients at a stated destination. This incorporates platforms such as online food delivery services, e-hailing, accommodation and household services[14].

In general, drivers or riders working in "gig work" travel using their vehicles. Employees in the gig economy are considered self-employed and not protected by the employment act.

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[13] Occupational Safety and Health Industry Code of Conduct for road transport activities, 2010
[14] Schmidt. F. A. (2017). Digital Labour Markets in the Platform Economy: Mapping the Political Chaleenges of Crowd Work and Gig Work. Friedrich-Ebert-Stiftung.

However, they are responsible for managing their job in a manner that does not create health and safety risks to themselves and others. Furthermore, OSH responsibilities are also placed on employers, although the gig economy is often labelled as self-employed. Apart from that, the government also needs to undertake initiatives to ensure that the safety and health of gig economy employees are protected. Among them are preventive measures and health promotion that are being promoted through the "Vision Zero" campaign, which is the module development or additional promotional guide for work safety and health for e-hailing drivers and operators, and gig economy players.

"Vision Zero" is a preventive approach that integrates three dimensions which are safety, health, and well-being at all levels of work. Its approach is flexible and can be adapted by prioritizing prevention in the selected context in the organization based on the most relevant issue to the needs of the organization.

In conclusion, WRRS management which encompasses employees in the gig economy, needs to be integrated into occupational safety and health regulations initiatives that involve occupations in digital platforms, including research and practice, to ensure a comprehensive OSH initiative for future programmes.

Strategic Thrust Outcomes

1. Increase in awareness and alertness level of work-related road safety (WRRS), informal sector, and future jobs.

2. Creation of expertise and research networks between stakeholders that involve OSH practices.

3. Creation of a safety management system to preserve the safety and welfare of employees in related occupational sectors.

4. Increase in OSH awareness, knowledge, and practices among informal sector employees.

PROGRAMME 1
Enhancing awareness and alertness of OSH practices for Future Jobs

The popularity of e-hailing services has soared following the implementation of the Movement Control Order (MCO) on 18 March 2020 in response to the spread of Covid-19.

Basically, the gig economy sector has grown in western and European countries in the past 10 years ago. In Malaysia, the gig economy began to grow in the past two to three years in line with the development of digital technology platforms.

The popularity of the gig economy has soared following the implementation of the Movement Control Order (MCO) on 18 March 2020 in response to the spread of Covid19, have further expedited the country's gig economy growth. Industry players from various sectors such as manufacturing, education, medical, and even finance have begun to explore the gig economy, compared to retail and logistic sectors, which are

quite synonymous with digital platform services such as virtual supermarkets, food delivery services, and others of the like. It is not surprising if positive acceptance of the gig economy will soon change the the economic landscape of the country and capable of contributing the biggest

percentage to the Gross Domestic Product (GDP) of the country in the future.

Following the rapid growth of the economy in this sector, strengthening awareness and alertness of occupational safety and health (OSH) practices, especially for work-related road

safety (WRRS), should not be overlooked by gig economy players. In fact, it must be further increased as many have yet to be concerned on this issue. Among the activities that can be implemented to achieve this goal is:

Activity:

1. To increase awareness and alertness of OSH practices for Future Jobs

Outcomes:

1. Increase in the level of awareness and understanding of OSH practices especially related to WRRS, among gig economy players.

2. Gig economy employee associations/unions that function as a medium of experience and knowledge sharing act as "middle person" between the authorities and employees in preserving the safety, welfare, and rights of employees and others.

PROGRAMME 2

« **Enhancing awareness and alertness of OSH practices in e-hailing services.**

The surge of e-hailing combined with technological advancement has provided a stimulus to businesses, including opening doors for many Malaysians to generate supplementary income. These

have brought about growth in what we call today the gig economy. There are still a number of studies that need to be done to understand this new sector. This industry is fast developing when more

people rely on e-hailing, especially in city areas following the comprehensive connection network choices in unreliable public transportation, which compromises punctuality.

More interestingly, e-hailing has merged with e-wallets, including cashless payments, by connecting e-hailing accounts to credit and debit cards. While this sector is growing, there is a need for regulation to guarantee the safety of its consumers, as well as the welfare of those involved in the segment of the economy which is fast developing.

Therefore, the government has introduced various new activities to provide exposure and explanation of safety aspects that need to be inculcated to those who involve directly or indirectly in the gig economy.

Activities:

1. To increase acceptance and awareness of OSH practices among e-hailing workers.

2. To identify e-hailing workers associations/unions.

Outcomes:

1.

Increase in the level of awareness and concern of OSH practices related to e-hailing services.

2.

Establishment of a centre of data collection and analysis resulting from comprehensive studies related to employees accidents and death in e-hailing services.

3.

Establishment of good accident prevention control measures to protect the safety of employees in e-hailing services.

PROGRAMME 3

Strengthening management of work-related road safety (WRRS)

The introduction of Road Safety Management Systems MS ISO 39001: 2012 certification in 2014 has also intended to aid organizations that have their own logistical unit for operating their vehicles in accordance with international standards. With this

certification, organizations that are voluntarily involved accept that they have to comply with international standards with regard to road traffic safety, which includes, among others, management of drivers, management of vehicles, and management of travel.

Companies that obtain the certificate shall ensure that their staff focus on road traffic safety and comply with the regulations and laws consistent with the related road safety standards.

Activities:

1.

To conduct studies on WRRS hazards and risks.

2.

To conduct WRRS awareness programme/ training.

3.

To strengthen the road safety system related to WRRS.

4.

To enhance ISO 39001 certification - Road Traffic Safety Management Systems.

Outcomes:

1. Strengthened comprehensive work-related road safety (WRRS) involving systems, and competent persons, including formulation of guidelines.

2. Increase involvement of companies possessing ISO 3900- Road Traffic Safety Management Systems certification.

PROGRAMME 4

‹◆ OSH Improvement in informal sectors

Informal sectors are organizations that are not registered with the Companies Commission of Malaysia (CCM) or any professional bodies, including local authorities. All or at least one product or service offered is for sale or barter transaction purposes. The number of employees must be less than 10 and not registered under prescribed laws. This sector does not include agriculture and government sectors. This programme is aimed at improving OSH practices and compliance at various levels in informal sectors, from top management to employees. Knowledge, skills, and competency are required to identify hazards and assess risks for appropriate control measures can be taken.

Activities:

1. To increase OSH practices awareness for informal sectors.

2. To develop safe and healthy work methods which are suitable and easy to implement.

3. To increase the quantity and quality of training for informal sector players.

Outcomes:

1. Increase in knowledge, skill, and competency among informal sector players.

2. Increase in the effectiveness of quality training by collaborating with various agencies such as community colleges for the development of human resources in informal sectors.

CONCLUSION

I n conclusion, the objective of this strategy is to cultivate awareness and understanding related to OSH at various levels of society, especially among gig economy players. Emphasis will also be put on enacting laws related to the safety of this new sector and also management initiatives based on smart systems among employers, employees, and OSH practitioners. The next objective is to create a network of experts among stakeholders that incorporate OSH practices in the gig economy sectors. Other than that, attempts to establish good accident prevention control measures are needed to protect the safety of gig economy players. The government hopes that with the existence of this initiative, it will receive a positive reaction, especially from the gig economy players.
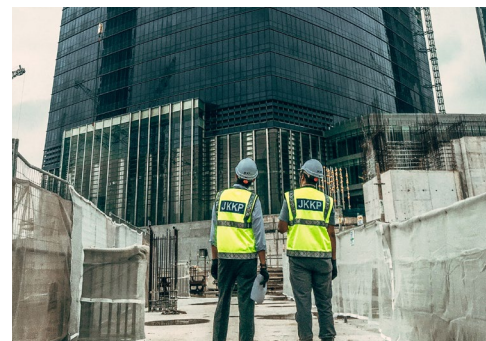
CLOSING

- Vision Achievement - Prospectus
- Five Year Outreach
- Expectation of Reactions Among Stakeholders in the New System of Safety and Health

VISION ACHIEVEMENT - PROSPECTUS

Five Year Outreach

1. OSHMP25: A paradigm shift towards enculturation of a more excellent and advanced OSH. This is in line with the occupational safety and health thrusts formulated by the government at a national level and by agencies at a global stage, including high alertness on issues related on OSH at departmental and national levels.

2. OSHMP25 experienced tangible revitalization in its approach when DOSH engaged all stakeholders in its formulation and implementation, in accordance with OSHMP25 principal values, which are inclusive, as well as an engaging commitment of various agencies, other than being guided by international standards as the benchmark by end of 2025.

3. By pivoting on self-regulation and industrial-led initiative concepts, OSHMP25 highly encourages active involvement from all stakeholders. Therefore, DOSH will be able to give a full commitment to aspects of enforcement. OSH laws will also be continuously streamlined. This will simultaneously aid in reducing accident and death rates related to work in this country.

Expectation of Reactions Among Stakeholders in the New System of Safety and Health

» **National Council for Occupational Safety and Health Malaysia (NCOSH)**

To empower the role of NCOSH in increasing involvement and cooperation of various agencies from public and private sectors as well as every stakeholder through the input of ideas and proposals in strengthening the country's OSH management and governance.

» **Department of Occupational Safety and Health Malaysia (DOSH)**

Empowerment of OSH management in Malaysia by inculcating elements of enforcement transformation, self-compliance, more comprehensive use of technology, improvement of OSH big data system, and development of competent officers to improve service delivery quality and continuously ensure increase in the level of OSH compliance in this country.

》》 **Local Authority (PBT)**

Competent, consistent, committed and becoming enforcement partners with DOSH.

》》 **OSH Professional Members**

To detail out issues outside the health and safety mainframe as well as providing justification on issues involved.

》》 **Employers**

Active involvement with safety and health representatives that are fully responsible for the safety and health management as well as publishing safety and health performance reports, bulletins and others periodically as one of the forms of social accountability.

》》 **Employees**

To understand and practise occupational safety and health (OSH) values, including responsibility for the safety and health of oneself and colleagues.

》》 **General public**

Alert and knowledgeable in occupational safety and health (OSH) principles as well as providing full support to the roles of relevant parties such as NCOSH, DOSH and local authorities.

》》 **Employees Association/Union**

Active involvement with relevant parties in propagating and supporting occupational safety and health (OSH) practices and acting as the 'voice' and 'middle person' between authorities and employees in preserving the safety and health of employees.

》》 **Safety representative**

Comprehensive involvement of safety representatives in local safety and health management.

》》 **Non-Governmental Organization (NGO)**

Comprehensive participation to assist the government to garner community involvement in OSH.

》》 Small and medium enterprises (SMEs)

Employers and employees in this sector are capable of exploring the importance of OSH in the workplace.

》》 Media

Increase in OSH promotional frequency in mainstream media and new media such as social media.

》》 Member of Occupational Health Professional

Recognition of the role of Occupational Health Medicine Specialist (OHMS) as Competent Person under DOSH.

OCCUPATIONAL SAFETY AND HEALTH
MASTER PLAN
INCLUSIVE OSH – TOGETHERNESS AND COMMITMENT
2021-2025

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