

Basic Information and Data Collection Study
on
Occupational Safety and Health
in Asian Countries

Final Report

February, 2017

Infrastructure Development Institute-JAPAN

Chodai CO.,LTD.

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JR
17-055

Outline of the Study

1. Outline of the Study

Recently, many countries in Asia and other regions have faced the needs to improve their occupational safety and health as they liberalized labor migration across borders and attracted workers with different languages, culture, customs, etc., working together in the same workplaces, construction sites, etc. Meanwhile, It has been seen a new growth of demand for cooperation in the field of occupational safety and health and official request from Middle East countries. In this context, the need has arisen for JICA to examine the directions of future cooperation overseas by collecting the latest information in the field of occupational safety and health in Asian countries, identifying issues to be addressed, and exploring trends of cooperation provided by international organizations and national governments. For this purpose, JICA have decided to explore possibilities for overseas cooperation in the field of occupational safety and health by conducting field surveys and literature research aimed at the objectives shown below:

The major subjects of the study are as follows:

- Grasp the current situation in Indonesia of occupational safety and health and sort out and analyze issues to be addressed;
- Grasp the latest situation and sort out and analyze successful cases in candidate countries for third-party resources (Malaysia and Singapore);
- Conduct a literature research in eight countries, including Thailand and Vietnam;
- Invite to Japan government employees in charge of occupational safety and health from Indonesia and Malaysia;

2. Study Method and Contents

(1) Study Method

Information collection have been conducted by interviews for Japan Embassy in Indonesia and Singapore, JICA Overseas Offices, OSH related ministries and organizations, Japanese contractors, construction associations in the three countries for which overseas study has been done, and by gathering questionnaire responses from these organizations in each country.

(2) Study Contents

Wide range of basic information on Occupational Safety and Health targeting 11 Asian countries such as statistical data, legislative framework and administrative structure for each country has been collected. Detailed items for information collection are shown in the followings;

- Statistics of Occupational Safety and Health, Legal System and Administrative Framework in Indonesia
 - 1) Statistics of Numbers of Recent Occupational Accidents, Types of Accidents and Diseases
 - 2) Occupational Safety and Health Related Legislation, Institution and National Plan
 - 3) Positioning of Occupational Safety and Health Administration on Nation's Policy
 - 4) Roles of Central Government on Occupational Safety and Health
 - 5) Roles of Regional Governments/Autonomous Bodies or Regional Branches of Central

Government on OSH

- 6) Roles of Occupational Safety and Health Related Organizations
- 7) OSH Related Activities by Private Enterprises and NGOs
- 8) OSH Related Activities by the Labor Union and/or Employer's Association

○ Present Situation of Occupational Safety and Health Administration and its Challenges

- 1) Site Inspection System, Reporting System
- 2) Education on Safety and Health
- 3) License and Checking System
- 4) Measures for Securing Worker's Safety and Health at Workplaces
- 5) Measures for Securing Worker's Safety and Health at Construction Sites
- 6) Accident Compensation System for Workers
- 7) Present Situation of OSH Framework Application for Foreign Workers and its Challenges in the Study Countries
- 8) Present Situation of OSH Framework Application for Foreign Contractors Joining Works at Local Projects and its Challenges in the Study Countries
- 9) Present Situation of Cooperation on OSH by the third Countries and International Organizations

(3) Matter for Study

Based on the result of information collection & sorting out them, in addition, especially for Indonesia, Malaysia and Singapore, the Study Team sorted out the study result from the viewpoints shown as follows in light of present OSH administrative situation as well as futuristic OSH policy for the future in each country.

- 1) To suggest problem-solving approach on prioritized OSH challenges
- 2) To identify possible cooperative resources in Japan which contribute to problem-solving
- 3) To clarify points to be considered for technical assistance in the future

3. Overseas Study Schedule

A table in the next page shows the 1st overseas study schedule, from November 7th to 26th, 2016.

The 1st Overseas Study Schedule in Indonesia, Malaysia and Singapore
from November 7th to 26th, 2016

Month	Date	Day	ITINERARY	Stay in
11	7	Mon.		Jakarta
			➔ Narita at 21:40 (MH071) ⇒	
	8	Tue.	⇒ Kuala Lumpur at 04:30 ➔ Kuala Lumpur at 07:25 (MH713) ⇒ ⇒ Jakarta at 08:30	Jakarta
			◆ 14:00-16:00 Meeting at JICA JKT office	
	9	Wed.	■ 07:30(-10:00) Interview at Labour Inspection Development & OSH Development Department, Min. of Manpower etc. ■ Interview at Pusat K3	Jakarta
	10	Thu.	■ 10:00-11:00 Interview at Indonesian Contractors Association, AKI ■ 13:00-14:00 Interview at Association of Experts for Occupational Safety and Health of Construction Work in Indonesia, A2K4 ■ 16:00-17:30 Interview at Shimiz Corporation MRT Project Office	Jakarta
	11	Fri.	■ 07:00-09:00 Interview at The National Safety and Healthy Council of Indonesia, DK3N ■ 14:00-15:00 Interview at INKINDO	Jakarta
	12	Sat.	◇ Information collection/Preparation for reporting	Jakarta
	13	Sun.	◇ Information collection/Preparation for reporting	Jakarta
	14	Mon.	■ 07:30-09:30 Data Collection at Labour Inspection Development & Occupational Safety & Health Development Department, Min. of Manpower	Jakarta
			◆ 15:00-16:00 Reporting at JICA JKT office	
	15	Tue.	◇ Information collection	Jakarta
	16	Wed.	◆ 09:00-14:00 Participation for OSH Seminar	Kuala Lumpur
			➔ Jakarta at 18:25 (MH722) ⇒ Kuala Lumpur at 21:25	
	17	Thu.	◆ 09:00-10:00 Meeting at JICA KL office ■ 11:00-13:00 Interview at Policy, International and Research Development Division, DOSH, Ministry of Human Resources (MOHR) ■ Interview at National Institute of Occupational Safety and Health, NIOSH	Kuala Lumpur
	18	Fri.	■ 09:30(-11:00) Interview at Construction Industry Development Board Malaysia, CIDB ■ 15:00(-16:30) Interview at Social Security Organization, SOCSO	Kuala Lumpur
	19	Sat.	◇ Information collection/Preparation for reporting	Kuala Lumpur
	20	Sun.	◇ Information collection/Preparation for reporting	Kuala Lumpur
	21	Mon.	■ 09:30-13:00 Data Collection at DOSH, MOHR	Kuala Lumpur
			◆ 15:00-16:20 Reporting at JICA KL office	
	22	Tue.	➔ Kuala Lumpur at 08:05 (MH601) ⇒ Singapore at 09:05	Singapore
			◆ 13:30(-15:00) Meeting at Japan Embassy ■ 16:00(-16:50) Interview at Kiso-JIBAN Consultants	
	23	Wed.	■ 10:15(-11:45) Interview at Occupational Safety and Health Division, Min. of Manpower/OSHNET Secretariat office ■ 14:00(-15:30) Interview at Land Transport Authority, LTA	Singapore
	24	Thu.	■ 09:00(-10:30) Interview at Singapore Cooperation Enterprise, SCE ● 13:30-16:30 Construction site visit (OBAYASHI Corp.)	Singapore
	25	Fri.	◇ Information collection	-
			➔ Singapore at 19:30 (MH616) ⇒ KL at 20:25 ➔ Kuala Lumpur at 23:25 (MH088) ⇒	
	26	Sat.	⇒ Narita at 07:15	

List of Visit Organizations & Interviewees during the 1st Overseas Study from November, 7th to 26th

List of Visit Organizations & Interviewees

Organization	Name	Position
in INDONESIA		
Japan Embassy in Jakarta	Mr. Shinichiro Honda	First Secretary
JICA Jakarta Office	Mr. Nobuo Sambe	Senior Technical Advisor, JICA JKT Office
	Mr. Kei Endo	Representative, JICA JKT Office
Ministry of Manpower	Mr. Shinichi Takasaki	JICA Labor Policy Advisor
	Ir. Amri Ak, MM	Director of Norm Supervision for Occupational Safety & Health
	Mr. Daafi Armanda	Deputy Director of Norm Supervision for Occupational Safety & Health
	Mr. Ghazmahadi, ST. MM.	Chief Supervision Norm Construction Building Electronic and Fire Protection
	Mr. Ragil M	Chief of Section for Mechanic OSH
	Mr. Herman Bagus	Chief of Sub Dir. Ergonomic, Working Environment & Dangerous Substances Norm Supervision
	Mr. M. Agus Talib	Staff of Construction Section
	Mr. Gumilang M. Yani	Labor Inspector
	Mr. Zuhri Ferdeli	Labor Inspector
	Pusat K3 (Keselamatan & Kesehatan Kerja)	Dr. Dewi Rahayu
Asosiasi Ahli Keselamatan Dan Kesehatan Kerja Konstruksi-INDONESIA, A2K4	Drs. Dominggus Manuputty, BSc, MM, CSP.	General Secretary
	Ir. M. Mushanif Mukti, MK3, CSP	Chairman I
	Ir. Kusumo Dradjad S, MSi, CSP.	Chairman IV
	Mr. Robert Sugihardjo, Bc.P, SKM, CSP.	Chairman of the Education and Training
	Ir. Prijono Wiryodiningrat, MM, CSP.	—
Asosiasi Kontraktor Indonesia, AKI	Ms. Ruth Wijaya	—
National Association of Indonesian Consultants	Ir. Zulkifli Halim	Vice Secretary General
	Ms. Ani	Executive Director
	Ms. Qhorryna Meiyani Rals, SE	Head Division of BKKA
Shimizu Corporation, MRT Project Office	Mr. Yoshihiko Kato	Assistant Chief Representative
	Mr. Sakamoto Masanobu	CP 105 Station Construction Manager
	Mr. Muhammad Ridho	HSE Manager
	Mr. Irwan. Li	HSE Manager
	Mr. Pandu Nopiandi	Environments SPV.
in MALAYSIA		
JICA Kuala Lumpur Office	Mr. Kojiro Matsumoto	Chief Representative
	Mr. Shinsaku Fukazawa	Senior Representative
	Mr. Shigeki Nakazawa	Project Formulation Advisor
	Ms. Yuka Sonoyama	Representative
Ministry of Human Resources	Mr. Mohd Anuar Bin Embi	Director for Policy, International And Research Development Division
	Mr. Mohammad Lui b-Juhari	Assistant director, Policy Division
	Mr. Wan Hilemi Bin Wan	Assistant director, Policy Division

	Hussein	
	Ms. Hanis Farzana Binti Mohd	Assistant director
	Mr. Lee Kem Seng	Officer / National council
	Mr. Mohd Khairi	Senior Assistant director
	Mr. Wan Ahmad Jaziila	Assistant director
	Mr. Aboni Muhaimin abdnilah	Assistant director
	Mr. Mohd Farid	Officer, , Policy Division
	Mr. Abdul Muhaimin Aldullah	Assistant director, Policy Division
	Dr. Ibrahim MD Dai	Director , Industry Safety Division
National Institute of Occupational Safety and Health, Min. of Human Resources, NIOSH	Mr. Fadzil Osman	General Manager ,Consultation, Research & Development Department
	Mr. Zulfadli Suhail	Executive, Communication, Business, Information and Development Division
	Mr. Yuzainie Yusof	Manager, Industrial Hygiene Division
	Ms. Suhaily Binti Amran	Manager / OSH Consultant
	Mr. M • Paramesvaran	Executive
Construction Industry Development Board, CIDB	Mr. Khairunnizam Bin Sulaiman	Senior Manager, SHEQ Division, Technology Development Sector
	Mr. Azhar Abudllah	Senior Manager, Enforcement Division
	Ms. Mazurah Ismail	Manager, SHEQ Division, Technology Development Sector
Social Security Organization, Min. of Human Resources, SOCSO	Dr. Azlan Bin Darus	Manager, Prevention and Rehabilitation Section, Operation Division
	Mr. Harun Bin Bakar	Manager, Accident Prevention Section Operation Division
in Singapore		
Japan Embassy in Singapore	Mr. Norikazu Takebe	Second Secretary
Kiso-jiban Consultant Co., Ltd.	Mr. Yoshihiro Yokoi	General Manager
Ministry of Manpower	Mr. Wilbur Oh	Head, International Collaboration
Workplace Safety and Health Council	Ms. Lim Yen Ling	Senior Assistant Director
Land Transport Authority	Mr. Ong Ho Peng	Manager, Safety and Health Safety Division
	Mr. Andrew Tan Hoch Seng	Manager, Safety and Health Safety Division
Singapore Cooperation Enterprise	Ms. Kris LEOW	Manager, International Partnerships
	Mr. LIM Teck Ren Melvin	Manager, International Partnerships
Obayashi Corporation, STTP Project Office	Mr. Toshiyuki Yagai	Deputy General Manager
	Mr. Toshiya Imazato	Project Manager
	Mr. Jun Tomoda	Deputy Project Manager

List of Collected Documents or Materials during the 1st Overseas Study from November 7th to 26th, 2016

List of Collected Documents or Materials

In INDONESIA

Title	Source	Media	Language	Contents
PERSYARATAN MENJADI ANGGOTA ASOSIASI KONTRAKTOR INDONESIA (AKI)	INTERNATIONAL FEDERATION OF ASIAN AND WESTERN PACIFIC CONTRACTORS ASSOCIATIONS/ASOSIASI KONTRAKTOR INDONESIA	Printed Material	Indonesian	Outline of AKI's Activities
KEMNAKER PROFILE DIREKTORAT BINA KESELAMATAN DAN KESEHATAN KERJA KEMENTERIAN KETENAGAKERJAAN REPUBLIK INDONESIA	DIREKTORAT BINA KESELAMATAN DAN KESEHATAN KERJA	Booklet	Indonesian	Activities of Pusat K3
PUSAT KESELAMATAN & KESEHATAN KERJA	KEMENTERIAN TENAGA KERJA RI Pusat Keselamatan dan Kesehatan Kerja	Brochure	Indonesian	Brochure for Pusat K3
Membangun Manusia Karya ACT No. 1 OF 1970 ON SAFETY (State Gazette No. 1 Of 1970)	DIREKTORAT JENDERAL BINA HUBUNGAN KETENAGAKERJAAN DAN PENGAWASAN NORMA KERJA	Booklet	Indonesian /English	Labor Act, 1970
KEMENTERIAN KETENAGAKERJAAN REPUBLIK INDONESIA Petunjuk Pelaksanaan Bulan Keselamatan dan Kesehatan Kerja Nasional Tahun 2015-2019	UTAMAKAN KESELAMATAN DAN KESEHATAN KERJA	Booklet	Indonesian	OSH 5 Year Plan, 2015-2019
Associations in Indonesia -subtitle- To promote and encourage a highly reliable, independent, productive, accountable and competitive national construction industry either in National or International market	ASOSIASI KONTRAKTOR INDONESIA Indonesian Contractors Association	Brochure	English	Brochure for AKI

In MALAYSIA

Title	Source	Media	Language	Contents
STANDARD INDUSTRI PEMBINAAN (CONSTRUCTION INDUSTRY STANDARD) CIS 10; 2008 SAFETY AND HEALTH ASSESSMENT SYSTEM IN CONSTRUCTION	Lembaga Pembangunan Industri Pembinaan Malaysia CONSTRUCTION INDUSTRY DEVELOPMENT BOARD MALAYSIA	Booklet	English	Safety & Health Assessment System in Construction Industry
SHASSIC SAFETY AND HEALTH ASSESSMENT SYSTEM IN CONSTRUCTION Tingkatkan Tahap Keselamatan Dan Kesehatan Dalam Pembinaan Melalui SHASSIC 'Enhancing The Level of Safety and Health In Construction Through SHASSIC'	Lembaga Pembangunan Industri Pembinaan Malaysia Construction Industry Development Board Malaysia	Brochure	Malay /English	Safety & Health Assessment System in Construction Industry by SHASSIC
GUIDELINE FOR: 1. OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIFICATION 2. OSH SCHEDULE OF PRICES	Lembaga Pembangunan Industri Pembinaan Malaysia CONSTRUCTION INDUSTRY DEVELOPMENT BOARD MALAYSIA	Booklet	English	Sample Format of OSH Specification & List of Safety Equipment etc. by CIDB
NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH	NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH) MINISTRY OF HUMAN RESOURCES, MALAYSIA	Printed Material	English	Outline of NIOSH's Activities
PERKESO SOCIAL SECURITY PROTECTION Employment Injury Scheme Invalidity Scheme	SOCIAL SECURITY ORGANISATION	Booklet	English	Outline of SOCSO's Activities
132 years Enforcement of Occupational Safety and Health in Malaysia	Department of Occupational Safety and Health Ministry of Human Resources Malaysia	Booklet	English	Documentary of OSH Implementation in Malaysia

In SINGAPORE

Title	Source	Media	Language	Contents
List of Companies under Business Under Surveillance (BUS) Programme	MINISTRY OF MANPOWER	Printed Material	English	List of Companies under Business Under Surveillance (BUS) Programme
List of Contractors with Demerit Points	MINISTRY OF MANPOWER	Printed Material	English	List of Contractors with Demerit Points
List of Factories and Work-sites Issued with Stop Work Orders (SWO) in the period 01-Jan-16 to 31-Oct-16	MINISTRY OF MANPOWER	Printed Material	English	List of Factories and Work-sites Issued with Stop Work Orders
-Construction in Singapore- Assistance for Foreign Construction Workers by the Aid	The Daily NNA Singapore & ASEAN	Printed Material	Japanese	Articles of Safety Training for Foreign Workers in the Construction Industry
Speech by Mr Sam Tan, Minister of State for Manpower at Committee of Supply 2016	MINISTRY OF MANPOWER	Printed Material	English	Speech by Minister of State for Manpower at Committee of Supply 2016
List of Offenders Convicted under Workplace Safety and Health Act, 2016	MINISTRY OF MANPOWER	Printed Material	English	List of Offenders against Workplace Safety and Health Act
Quick Guide on Submitting Incident Report	MINISTRY OF MANPOWER	Printed Material	English	Documents for Accident Report
DESIGN AND CONSTRUCTION OF EAST-WEST TRANSMISSION CABLE TUNNEL TC 110148 CONTRACT EW1 PROJECT OVERVIEW	OBAYASHI	Printed Material	English	SPPA Project Outline
50 YEARS, ONE VISION: TRANSFORMING SINGAPORE INTO A NATION OF WSH EXCELLENCE	MINISTRY OF MANPOWER	Printed Material	English	50 Years VISION on Ministry of Manpower
PARTNERING SINGAPORE'S PUBLIC SECTOR	SCE SINGAPORE COOPERATION ENTERPRISE	Booklet	English	Outline of SCE's Activities
A Global Vision of Prevention Global Forum for Prevention 3-6 September 2017, Singapore XXI WORLD CONGRESS ON SAFETY & HEALTH AT WORK 2017	MINISTRY OF MANPOWER	Booklet	English	2nd Announcement of International OSH Congress in September 2017
A HEALTHY WORKFORCE IN A SAFE WORKPLACE	MINISTRY OF MANPOWER	Printed Material	English	Organization & Outline of MoM's Activities
WORKPLACE SAFETY & HEALTH PROFILE 2014	MINISTRY OF MANPOWER	Printed Material	English	OSH Profile at Workplace
Overview of Singapore & Market Penetration of Japanese Company, August 2016	JETRO, Singapore Office	Printed Material	Japanese	-

Photos



INDONESIA

JICA Jakarta Office



INDONESIA

Ministry of Manpower



INDONESIA

**Pusat K3
(Keselamatan & Kesehatan Kerja) No.1
OSH Training**



INDONESIA

**Pusat K3 No.2
Training Device on Ventilation**



INDONESIA

**Pusat K3 No.3
Boiler for Training**



INDONESIA

**Pusat K3 No.4
Chemical Examination Equipment in the
Training Facility**

Photos



INDONESIA

**Pusat K3 No.5
Devices for Training**



INDONESIA

**Pusat K3 No.6
Examination Equipment for PPE**



INDONESIA

**Pusat K3 No.7
Helmet Strength Measuring Device in the
Training Facility**



INDONESIA

**A2K4
(ASOSIASI AHLI KESELAMATAN DAN
KESEHATAN KERJA KONSTRUKSI-
INDONESIA)**



INDONESIA

**DK3N
(National Occupational Safety and Health
Council)**



INDONESIA

Interview at MRT Project Office

Photos



MALAYSIA

DOSH, Ministry of Human Resources



MALAYSIA

National Institute of Occupational Safety and Health No.1



MALAYSIA

Ventilation Device, NIOSH No.2



MALAYSIA

Chemical Analysis Room, NIOSH No.3



MALAYSIA

Chemical Analysis Equipment, NIOSH No.4



MALAYSIA

Training Facility in the Confined Space, NIOSH No.5

Photos



MALAYSIA

Construction Industry Development Board



MALAYSIA

Social Security Organization, SOCSO



SINGAPORE

Japan Embassy in Singapore



SINGAPORE

Ministry of Manpower/OSHNET Scretariat



SINGAPORE

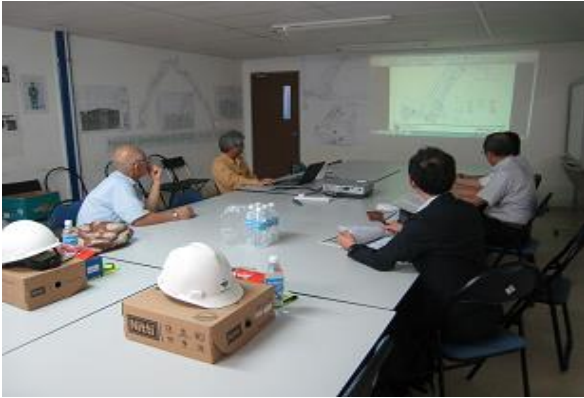
Land Transport Authority, LTA



SINGAPORE

Singapore Cooperation Enterprise

Photos



SINGAPORE

SP Cable EW1 Project Office



SINGAPORE

Site Visit for SP Cable EW1 Project No.1



SINGAPORE

Site Visit for SP Cable EW1 Project No.2



SINGAPORE

Site Visit for SP Cable EW1 Project No.3



SINGAPORE

Site Visit for SP Cable EW1 Project No.4



SINGAPORE

Site Visit for SP Cable EW1 Project No.5

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1. -3. INDONESIA

1. OSH Legal System, Administrative System and Accident Statistics of Indonesia

1.1. Profile of Indonesia

Indonesia is a republican nation located in Southeastern Asia, and the country has a territory of approximately 5,110km of east-west width. The country consists of 13,466 islands ranging from vast to tiny in their size along the equator. The population of Indonesia is more than 250 million which is ranked the fourth in the world and is also known as the largest Islam population country.

Indonesia is a multi-ethnic and multilingual nation. It continues development since its independence while groping for balance between centralization and decentralization, however, it is fact that Indonesia includes problems such as arising from desire of independence of some districts (provinces) up to present.

In order to grasp the present conditions and problems about the occupational safety and health in this country, it is particularly important to understand the history of the decentralization that has been pushed forward since independence.

Steps of Decentralization of Indonesia

- (1) The independence of Indonesia was accepted in Hague Round Table Conference held in December, 1949, and thereafter it essentially maintains the unitary state system firmly. It is one of the characteristics of the Indonesian history that it repeatedly strayed between centralization and the decentralization while maintaining a unitary state.
- (2) The need of the decentralization was recognized since the independence. However, there have been repulsions from the districts to plundering of natural resources by the central government under the centralization and containment of the protest movement with military forces. These situations lead a trial of the full-scale decentralization began after Soeharto regime collapsed in 1998.
- (3) Two decentralization laws (Local Administration Law, Central and Local Finance Balancing Law) were passed in 1999 by President Habibie who took over Soeharto, and the system reform was carried out from 2001. The four characteristics of the reform are as follows;
 - 1) Making much of decentralization
 - 2) Changing the relation of responsibilities from vertical system which flowed from the central government, province, prefecture/city, then ward/village to horizontal system from the local chief (governor) to the local assembly.
 - 3) Clarifying the rule of the fund transfer from the central government to the local government
 - 4) Bringing back the village self-government

With the characteristics 1) and 2) above, all the authorities were transferred to the prefectural and the municipal administration except diplomacy, national defense, judiciary, finance, religion and technology etc. that the central government needs to control.

As a result, the local chief takes responsibility basically for the local assembly instead of for the central government as previously did.

(4) In Indonesia, they tend to make the laws and the system first at any rate in many cases. And they make modifications to the laws and the system to match the actual conditions while practicing them. The past decentralization was a model example and there have been a movement to revise excessive decentralization recently. In the field of OSH as well, the government aims at more effective management by bringing back the authority from prefecture/city level to province level.

(5) Future problems in decentralization include following four issues.

1) Necessity of clarifying the relations of responsibilities among central government, province and prefecture/city, the role allotment, and the adjustment system

The government ordinance No.25 of 2000 prescribes the authorities of the central government and provinces only and places all others to the prefecture/city, which causes serious confusion, because the ordinance does not assume authorities in real administration and enforcement in detail.

2) Influence on local politics by enforcement of decentralization

In local chief elections and administration of local assemblies in the whole country, plutocracy is rampant. When the local chief does not take enough measures to the assembly, he/she might be dismissed by the assembly. Because the power of the assembly is strong, politics often gives priority to the short-term risk of the member of the assembly.

3) Dilemma of the local government between financial dependence and independence on the central government

As for the decentralization, the local government has to aim at financial independence in the mid-and-long term. This is also important to reduce the financial risk of the central government that is in a severe state by the economic rebuilding. However, on the other hand, it is considered that the self-resources income acquisition actions such as new local tax, burden charge and compulsion of contribution by local governments inhibit the economic activities in the district

4) Problem of the gap between the resource-wealthy districts and the resources-poor districts

The decentralization tends to widen the gaps among the districts. This is because the central government distributes the fund by the annual revenue from natural resources and the income tax to resources-wealthy and the population-dense district as a priority recipient. Expansion of the gaps between districts is regarded as the factor that can trigger national disruption instead of national unification.

1.1.1 Official Name of the Country

Republic of Indonesia

1.1.2 Scope of the Country (Area, Population, provinces)

Area: 1,919,000 km² (approx. 5.1times of Japan)

Population: 252.17 million (Statistics Indonesia: 2014)

Number of Province: 34 (As of 2014)

Population Density by Province: 7 (Papua Barat) ~ 14,469 (Special Capital Territory of Jakarta)



Fig. 1.1 Map of Indonesia (by Study Team)

Table 1.1 Population Density Distribution by 34 Provinces (Data in the table is as of 2011)

District	Province	Provincial Capital	Population (2010)	Area (km ²)	Population Density (Persons/km ²)
Pulau Sumatera	Aceh	Banda Aceh	4,494,410	57,956	77
	Sumatera Utara	Medan	12,982,204	72,981	177
	Sumatera Barat	Padang	4,846,909	42,012	115
	Riau	Pekanbaru	5,538,367	87,023	63
	Kepulauan Riau	Tanjung Pinang	1,679,163	8,201	204
	Jambi	Jambi	3,092,265	50,058	61
	Bengkulu	Bengkulu	1,715,518	19,919	86
	Sumatera Selatan	Palembang	7,450,394	91,592	81
	Kepulauan Bangka Belitung	Pangkal Pinang	1,223,296	16,424	74
	Lampung	Bandar Lampung	7,608,405	34,623	219
Jawa	Daerah Khusus Ibukota Jakarta	Jakarta	9,607,787	664	14,469
	Banten	Seraing	10,632,166	9,662	1,100
	Jawa Barat	Bandung	43,053,732	35,377	1,216
	Jawa Tengah	Semarang	32,382,657	40,800	793
	Daerah Istimewa Yogyakarta	Yogyakarta	3,457,491	3,133	1,103
	Jawa Timur	Surabaya	37,476,757	47,799	784

District	Province	Provincial Capital	Population (2010)	Area (km ²)	Population Density (Persons/km ²)
Kepulauan Sunda Kecil	Bali	Denpasar	3,890,757	5,780	673
	Nusa Tenggara Barat	Mataram	4,500,212	18,572	242
	Nusa Tenggara Timur	Kupang	4,683,827	48,718	96
Pulau Kalimantan	Kalimantan Barat	Pontianak	4,395,983	147,307	29
	Kalimantan Tengah	Palangkaraya	2,212,089	153,564	14
	Kalimantan Selatan	Banjarmasin	3,626,616	38,744	93
	Kalimantan Timur	Samarinda	3,026,060	139,462	21
	Kalimantan Utara	Tanjung Selor	622,350	71,176	8
Sulawesi	Sulawesi Utara	Manado	2,270,596	13,851	163
	Gorontalo	Gorontalo	1,040,164	11,257	92
	Sulawesi Tengah	Palu	2,635,009	61,841	42
	Sulawesi Tenggara	Kendari	2,232,586	38,067	58
	Sulawesi Selatan	Makassar	8,034,776	46,717	171
	Sulawesi Barat	Mamuju	1,158,651	16,787	69
Kepulauan Maluku	Maluku	Ambon	1,533,506	46,914	32
	Maluku Utara	Sofifi	1,038,087	31,982	32
Nugini	Papua (Irian Jaya)	Jayapura	2,833,381	319,036	8
	Papua Barat (Irian Jaya Barat)	Manokwari	760,422	97,024	7

1.1.3 Capital (Population, Location)

Jakarta: 10.18 million (Statistics Indonesia: 2014)

Latitude: 06.07S, Longitude: 106.4E

1.1.4 Climate, Temperature at Jakarta

Steamy tropical climate: Rainy season (November ~ June), Dry season (July ~ October)

The mean highest temperature: 34°C

The mean lowest temperature: 24°C

1.1.5 Religion, Language

Religion: Muslim (77%), Christian (13%), Hindu (3%), Others (7%)

Language: Indonesian (Bahasa Indonesia)

1.1.6 Currency

Rupiah: 1 U.S. dollar = 11,869 Rupiah (mean value in 2014)

1.1.7 Number of Workers (Statistics Indonesia: 2014)

Overall Industry	: 114.62 million
Agriculture, Forestry, Fishery	: 38.97 million (34%)
Manufacturing	: 15.24 million (13.3%)

1.1.8 GDP (Indonesian Government: 2014)

Nominal GDP: 888.5 billion U.S. dollars
Nominal GDP per capita: 3,531 U.S. dollars
Real GDP Growth Rate: 5.0%

1.1.9 International Balance of Payment (Indonesian Government: 2014)

Current Balance (International balance of payment base)	: Δ27.516 billion U.S. dollars
Trade Balance (International balance of payment base)	: 6.982 billion U.S. dollars
Foreign Currency Reserve	: 114.889 billion U.S. dollars
External Debts Balance	: 293,708 billion U.S. dollars

1.1.10 Investment (The Investment Coordinating Board (BKPM) 2014)

Amount of Direct Investment: 28.53 billion U.S. dollars
Direct Investment from Japan: 2.70 billion U.S. dollars
Number of Investment by Japanese Companies: 1, 010
Number of Japanese Companies in Indonesia: 1,071 (Directory of Japanese Companies Abroad by Toyo Keizai (2015))

1.1.11 Japan's ODA

Table 1.2 Foreign Aid by Japan for Indonesia

(100 million Yen)

Fiscal Year	Yen Loan	Gratis Fund Aid	Technical Cooperation
2010	438.77	37.28	96.45 (85.89)
2011	739.42	10.13	111.58 (92.47)
2012	154.90	60.97	82.91 (61.68)
2013	821.82	10.60	82.23 (60.06)
2014	—	3.19	54.08
Total to Date	47,219.70	2,779.51	3,629.35 (3389.19)

(Source: Ministry of Foreign Affairs HP)

Note:

1. As for the division of year and the amount of money, the yen loan and the grant fund aid, are based on the exchange of notes. Technical cooperation depends on an expense results base of the budget year.
2. It is the results of overall technical cooperation of the Japan as a whole for 2010 to 2013. Because the results of 2014 is currently being added up, only the JICA result is shown in the table. The number in the parenthesis shows the results of technical cooperation that JICA is carrying out and its total.

Table 1.3 Foreign Aid by Japan for East Asian Countries (in Million U.S. Dollars)

	Country/Area	Donation			Total	Government Loan			Total (Net Sum)	Total (Expend- iture)
		Gratis Fund Aid		Technical Cooperation		Amount of Loan (A)	Amount of Collection (B)	(A) - (B)		
			Donation							
1	Vietnam	39.67	—	88.76	128.43	1,755.54	360.89	1,394.65	1,523.09	1,883.98
2	Indonesia	32.22	1.15	79.20	111.42	458.52	1,762.15	-1,303.63	-1,192.21	569.94
3	Philippine	25.87	12.06	56.35	82.21	391.07	565.87	-174.80	-92.59	473.28
4	Thai	9.95	3.05	39.45	49.40	366.32	258.62	107.70	157.10	415.72
5	Myanmar	119.68	15.44	83.10	202.78	11.14	—	11.14	213.92	213.92
6	China	3.32	—	15.69	19.01	123.12	1,027.80	-904.68	-885.67	142.13
7	Cambodia	63.72	4.16	40.08	103.80	23.16	2.65	20.51	124.31	126.96
8	Mongol	19.19	—	20.72	39.91	79.82	15.67	64.15	104.06	119.74
9	Laos	65.47	2.83	29.13	94.60	12.31	3.58	8.73	103.33	106.91
10	Malaysia	2.94	2.83	14.33	17.27	75.20	122.89	-47.69	-30.42	92.47
11	East Timor	6.97	—	11.39	18.36	0.81	—	0.81	19.17	19.17
12	Others	1.07	1.07	7.64	8.70	—	—	—	8.70	8.70
Total of East Asia		390.08	42.60	486.02	876.11	3,297.00	4,124.49	-827.49	48.62	4,173.11
Total of ASEAN		359.53	41.53	430.53	790.06	3,093.25	3,076.66	16.59	806.65	3,883.31

(Source: Development Cooperation White Paper, 2015)

1.2. Legal System, Institution and Plan

The system of laws regarding occupational safety and health in Indonesia consists of various laws equivalent to the Occupational Safety and Health Act of Japan, ordinances and notifications, and it may be said that the system is relatively well constructed,

The entire structure of the system is shown in the collection of Occupational Safety and Health Act laws of one thousand and several hundred pages published by the Department of Labor every year.

Outline of the structure is as follows; (Numbers are as of the time of the investigation in 2016)

(1) Laws (Undang - Undang)	3
(2) Government Ordinances (Peraturan Pemerintah)	5
(3) Minister Ordinances (Peraturan Menteri)	25
(4) Minister Notification (Keputusan Menteri)	9
(5) Minister Instructions (Instruksi Menteri)	6

Among these, the most important and basis of the system is the Act No.1 of 1970 on Safety (Undang – Undang No.1 tahun 1970 tentang Keselamatan Kerja) which was enforced in 1970.

However, with the movement of decentralization of the country in the past several decades, the enforcement power of the law system for occupational safety and health has been transferred to provincial governments, then various provincial ordinances (Peraturan Daerah) have been enacted.

The central government will not interfere actively with the instruction orders by the local government, but only invalidate the provincial ordinances which clearly contradict to the laws and government ordinances.

1.2.1. Act No.1 of 1970 on Safety

This law should be regarded as the most fundamental law for the occupational safety and health system of Indonesia. It stipulates the scope of the law, conditions, the duty of the employers and the profit and duty of workers with regard to occupational safety and health. The table below shows the outline of the law.

Table 1.4 Outline of Act No.1 of 1970 on Safety

Chapter	Contents
Preamble	a. That all workers are entitled to the protection of their safety in performing work for their wellbeing, an increase in national production and productivity, b. That the safety of every other person in the work place should be ensured, c. That every source of production should be used and applied safely and efficiently, d. That for this it is necessary to make every effort to develop labor protection standards, e. That for the development of these standards it is deemed necessary to determine an act which contains general provisions on safety appropriate to social changes, industrialization, changing techniques and technology.
1 Definitions	Workplace, Manager, Employer, Director, Safety Inspector, Safety Expert
2 Scope	To regulate safety in all workplaces in Indonesia
3 Safety Conditions	(1) Prevent or reduce the possibility of accidents; (2) Prevent or reduce the possibility of danger from extinguish fires; (3) Prevent or reduce the possibility of danger from explosion; (4) Provide means of escape from fire or other danger; (5) Provide first aid in the event of injury;

	<p>(6) Ensure that workers are provided with protective equipment; (prevent or control the incidence of the spread of temperature variations, humidity, dust, dirt, smoke, vapor, gas emissions, variable weather conditions, rays or radiance, sound and /or vibrations;</p> <p>(7) Prevent or control the incidence of occupational diseases, whether physical or psychological, poisoning, infection or contagion;</p> <p>(8) Provide adequate and suitable lighting;</p> <p>(9) Provide satisfactory temperature and humidity levels;</p> <p>(10) Provide satisfactory air circulation;</p> <p>(11) Maintain cleanliness health and good order;</p> <p>(12) Achieve the unison of worker and work tools, environment, work methods and processes;</p> <p>(13) Safeguard and facilitate the transportation of men, animals, plants or goods;</p> <p>(14) Safeguard and maintain construction of all kinds;</p> <p>(15) Safeguard and facilitate the loading, unloading, handling and storage of goods;</p> <p>(16) Prevent electric shocks;</p> <p>(17) Adjust and develop safety measures in accordance with the requirements of decreasing accident rates.</p>
4 Supervision	The Director shall carry out the general implementation of the Act. And the Safety Inspectors and Safety experts shall assist in its implementation.
5 Guidance	Guidance for new worker; Training in accident prevention and firefighting, promotion of safety and health, and administration of first aid
6 Safety and Health Committees	The matters on setting up the Safety and Health Committees
7 Accidents	Obligation on the reporting of accidents
8 Obligations and Rights of Workers	<ul style="list-style-type: none"> ➤ To accurate information upon request by a Safety Inspector or Safety Expert. ➤ To use obligatory personal protective equipment. ➤ To raise objections to any work which, in their opinion, is doubtful regarding obligatory safety, health and personal protective equipment, requirements which are in the manager's area of responsibility.
9 Obligations when entering a Workplace	Any person entering a workplace shall obey all the safety instructions and use personal protective equipment obligatory by law.
10 Obligations of the Manager	Post notices on OSH, providing personal protective equipment
11 Concluding Provisions	Provisions on penalty

(Source: Safety Review Report of On-going Japanese ODA Loan Project in Indonesia and Vietnam by JICA, March, 2014)

1.2.2. Other Important Laws for Occupational Safety and Health

The following table shows other important laws for the occupational safety and health in Indonesia.

Table 1.5 Other Important Laws for Occupational Safety and Health

Title	Competent Authority	Establishment Year	Outline
Law Concerning Basic	Ministry of	1969	A basic law to protect workers, and is the

Matter with Workers (Act No.14/1969 on Employment)	Manpower and Transmigration		basic principle for the laws and ordinances thereafter. Issued regarding occupational safety and health as well as compensation for workers. In Article 9 and Article 10 of the law, it stipulates that the government shall promote protection of workers such as the compensation of occupational accidents/decease, labor security health code, labor standards and medical care and the rehabilitation, and the worker has a right to be protected.
Act No. 13/2003 Concerning Manpower	Ministry of Manpower and Transmigration	2003	A basic law concerning manpower, and stipulates regarding Occupational Safety and Health in Articles 86 and 87. (Refer below for detail)
The Worker's Compensation Act No.3/1951	Ministry of Manpower and Transmigration	1951 1992 Revised	Security for occupational accidents, death security, old age security and medical security etc.
Act No.40/2004 Concerning National Social Security System	Social Security Agency (BPJS Ketenagakerjaan)	2014	This law was established for the purpose of enforcement of the comprehensive social security system. Occupational accident/decease is become part of the system.
Ordinances No.14/1993 Concerning Execution of Worker's Social Security Program	Ministry of Manpower and Transmigration	1993	It prescribes about the methods together with Act No.1/1970 regarding the occupational safety when an accident occurred.
Ordinances No.5/1994 Concerning Occupational Safety and health Management System (OHSMS)	Ministry of Manpower and Transmigration	1996	It describes about occupational health and safety management system utilization to maintain a system of one labor security hygiene in the workshop, and to create a thereby safe workshop, efficiency, production.

(Reference 1)

Act No.13 /2003 Concerning Manpower

Article 86

- (1) Every worker/ laborer has the right to receive:
 - a. Occupational safety and health protection;
 - b. Protection against immorality and indecency;
 - c. Treatment that shows respect to human dignity and religious values.
- (2) In order to protect the safety of workers/ laborers and to realize optimal productivity, an occupational health and safety scheme shall be administered.
- (3) The protection as referred to under subsection (1) and subsection (2) shall be given in accordance with valid statutory legislation.

Article 87

- (1) Every enterprise is under an obligation to apply an occupational safety and health management system that shall be integrated into the enterprise's management system.
- (2) Rulings concerning the application of the occupational safety and health management system as referred to under subsection (1) shall be determined and specified with a Government Regulation.

(Reference 2)

Table 1.6 List of Occupational Safety and Health Laws

Laws	1) Law of Steam, 1930	Minister Ordinances (Continuation)	17) No.1 of 1988 on Certificate and Requirement for Operation of Steam Engine
	2) Act No.1 of 1970 on Safety		18) No.9 of 2010 on Steering Carrier and Passenger Plane
	3) Law No.13 of 2003 on Employment		19) No.2 of 1989 on Management Specification of Lighting Arrester
Government Ordinances	1) No.50 of 2012 on OSH Management System		20) No.2 of 1992 on Appointment, Duties and Authority of Occupational Safety and Health Expert
	2) No.7 of 1973 on Surveillance of Circulation, Distribution and Storage of Pesticides		21) No.4 of 1998 on Service Company for Occupational Safety and Health
	3) Ordinance, on Steam of 1930		22) No.1 of 1998 on Implementation of Health Care for Workers above the Social Insurance System
	4) No.19 of 1973 on Safety Regulation and Supervision in Mining		23) No.3 of 1998 on Investigation Report of Occupational Accidents
	5) No.11 of 1979 on Occupational Safety of Purified Processing of Petroleum Gas		24) No.4 of 1999 on Enforcement Method of Advisory Committee for Doctors
Minister Ordinances	1) No.1 of 1976 on Physician for Occupational Safety and Health		25) No.3 of 1999 on Occupational Safety and Health Regulation for Carrier and Passenger Plane
	2) No.1 of 1978 on Occupational Safety and Health Felling and Transportation of Trees		Minister Instructions
	3) No.3 of 1978 on Duties and Responsibilities of OSH Inspectors and Safety Experts		
	4) No.1 of 1979 on Responsibilities of Medical Company for Practicing Safety and Health		
	5) No.1 of 1980 on Safety and Health in Construction Works		
	6) No.2 of 1980 on Implementation of Medical Checkup for Occupational Safety and Health		
	7) No.4 of 1980 on Setting Requirement of Fire Extinguisher and Fire Extinguishing Facilities		
	8) No.1 of 1981 on Obligation for Reporting Occupational Disease		
	9) No.2 of 1982 on Pressure Vessel		
	10) No.3 of 1982 on Certificate Examination of Welders		
	11) No.3 of 1982 on Health Care of Workers		

12) No.2 of 1983 on Fire Alarm	Minister Instructions	1) No.11 of 1997 on Fire at Workplace and Special Surveillance
13) No.3 of 1985 on Safety and Health for Asbestos Work		2) Minister Instruction on Labor-Management Relations
14) No.4 of 1985 on Thrust and Production of Air Planes		3) Minister Instruction on Employment
15) No.5 of 1985 on Carrier and Passenger Plane		4) No.84 of 1998 on Reporting of Occupational Accidents and Accident Statistic Form
16) No.4 of 1987 on Occupational Safety and Health Committee		5) No.407 of 1999 on Obligation and Authorities of Elevator Engineers
		6) No.311 of 2002 on Certification of Electrical Engineer for Occupational Safety and Health

1.2.3. Decentralization of Occupational Safety and Health Administration

The relationship between the central government and the local (provincial) governments for implementing occupational safety and health policy is shown in Fig.1.2 (The figure shows the system stipulated by Act No.23 of 2014.)

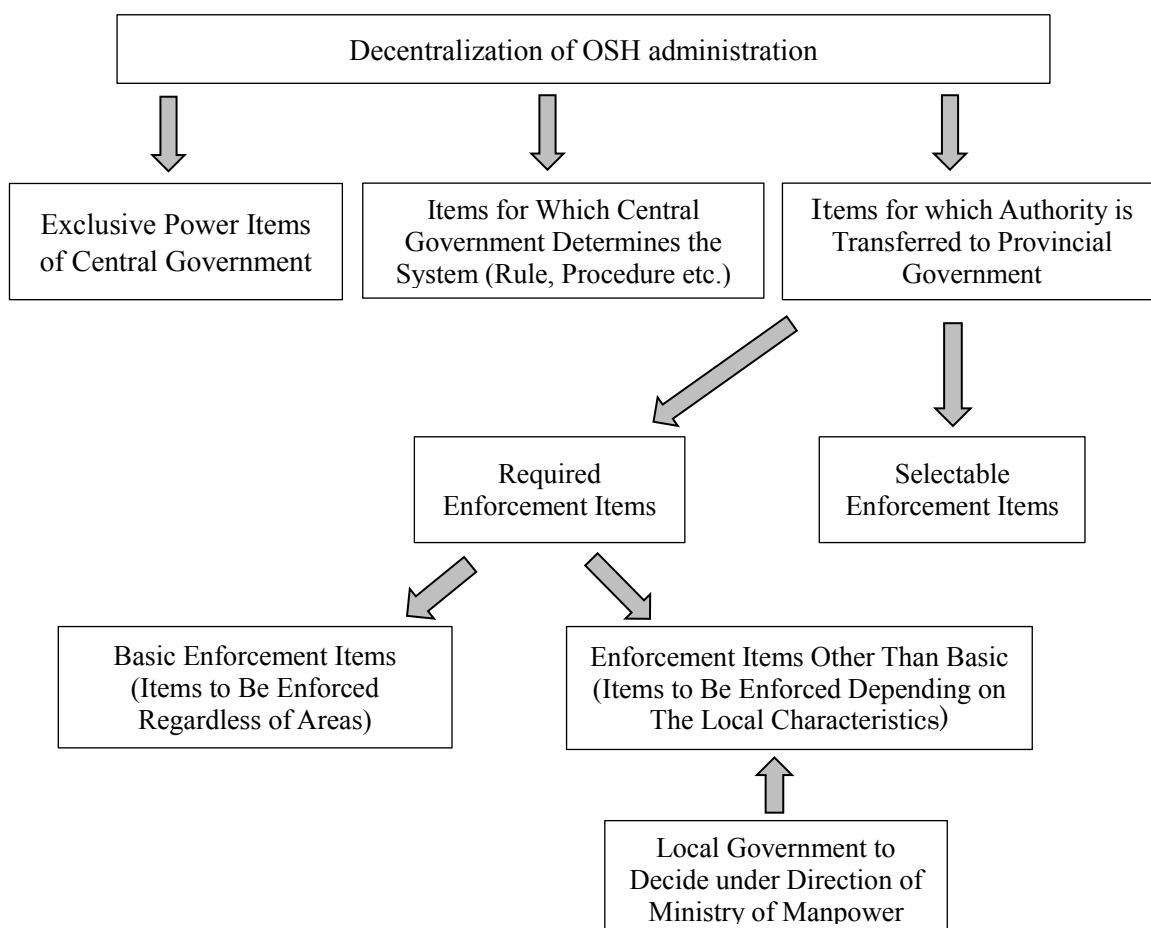


Fig.1.2 Framework for Enforcement of OSH Policies

- Act No.1 of 1970 on Safety and other related Minister Ordinances stipulate that the central government is the supervising body on OSH, and the local governments are the enforcement bodies on it.
- The Law No.23 of 2014 stipulates that the central government develops the system, standards, procedures and guidelines of OSH policies, and the local governments take charge of implementation and diffusion of OSH policies.
- The central government subsidized local governments for OSH, and local governments implement OSH policies using the subsidiary together with their own budgets.

1.2.4. Central Government Organization and Framework for Occupational Safety and Health

To realizing the OSH Policies, the central government has the structure of related elements shown in the Fig.1.3. The background of the structure may include that under the peculiar conditions of Indonesia such as its large size of the territory, it is important to establish a system for local governments to collect data of various aspects of OSH matters and report them to the central government in order to implement and diffuse OSH policies.

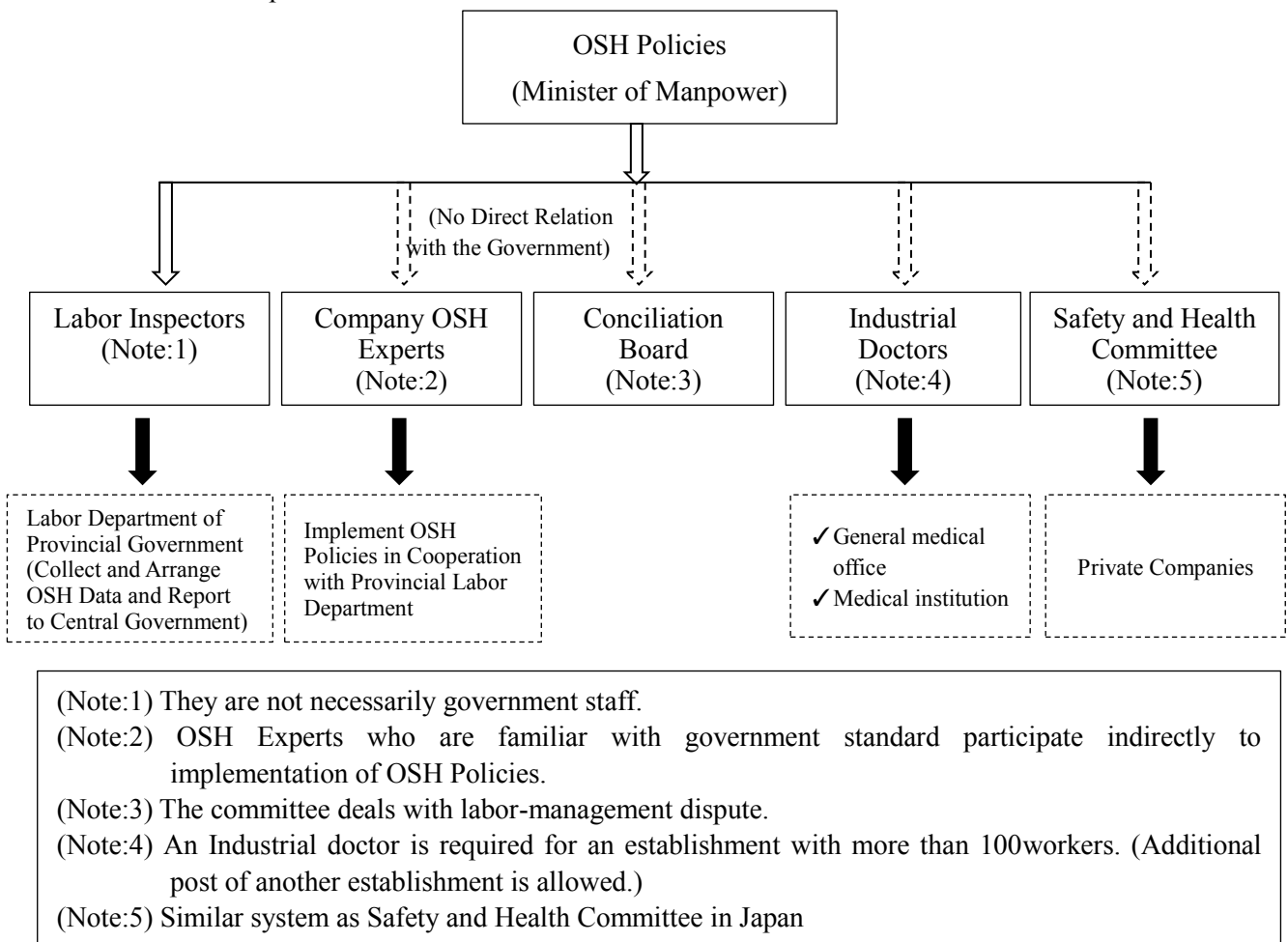


Fig.1.3 Central Government Organization and Framework for Occupational Safety and Health

1.2.5. Long Term Plan of Occupational Safety and Health

Through the interview with the Division in charge of occupational safety and health of Indonesia, the long-term OSH plan was confirmed as follows;

- 1) To achieve the purpose of Act N.1 of 1970 on Safety, conforming to Ministry Ordinance No.386 of 2014 on “Government Regulation for Implementation Guidelines of Occupational Safety and Health, 2014~2019” and to the Ministry Ordinance No.27 of 2016 on “National Employment Strategy 2015~2019”, the sustainable Occupational Safety and Health shall be realized by a national movement of promoting the formation of OSH culture of Indonesia.
- 2) In order to reduce occupational accidents and disease, by spreading the occupational safety and health management system and by improving productivity together with enhancing protection and welfare of workers, thus fixation of OSH shall be promoted.
- 3) Based on the OSH standard at workplace, establishing the roles and functions of the labor inspectors and independency as well, and strengthening protection of legal right of workers, thus number of violations shall be reduced.

1.3. Administrative Organization for Occupational Safety and Health

1.3.1. Outline and Roles of Division in Charge in the Central Government

The Ministry of Manpower takes charge of administration for the occupational safety and health matters in Indonesia. The ministry in charge for OSH used to be the Ministry of Manpower and Transmigration. Recently, reorganization of the ministry to specialize to the field of labor issues was made. Functions of the Ministry of Manpower are as follows;

- Appropriate placement of the work force
- Expansion of employment opportunity
- Improvement of employment service system
- Reinforcing information of the labor market
- Equalizing employment opportunity
- Improvement of capacity and productivity of workers
- Development of the labor-management relations
- Promoting social securities of workers
- Improvement of labor inspection
- Supervising occupational safety and health

There are four Directorate Generals under Minister of Manpower, and among them “Directorate General of Supervisory of Manpower and the Occupational Safety and Health” is exercising authority on occupational safety and health.

The Directorate General consists of six Directorates (Departments). Following two Directorates handle issues on occupational safety and health directly. (Fig.1.4)

a. Directorate of Norms Supervision of Occupational Safety and Health

The roles of “Directorate of Norms Supervision of Occupational Safety and Health” are as follows;

- Drafting and implementing of OSH policies
- Development of norms, standards, procedures and technical guidance
- Inspection
- Evaluation and report of the inspection standard for OSH field
- Others

(For the detailed organization, see Fig.1.5)

b. Directorate of Development of Occupational Safety and Health

According to the explanation at the interview with MOM, the roles of Directorate of Development of Occupational Safety and Health have aspects overlapping with those of Directorate of Norms Supervision of Occupational Safety and Health.

- Drafting and implementing of OSH policies
- Development of norms, standards, procedures and technical guidance
- Inspection
- Ex-post evaluation and report to the Minister
- Others

(For the detailed organization, see Fig.1.6)

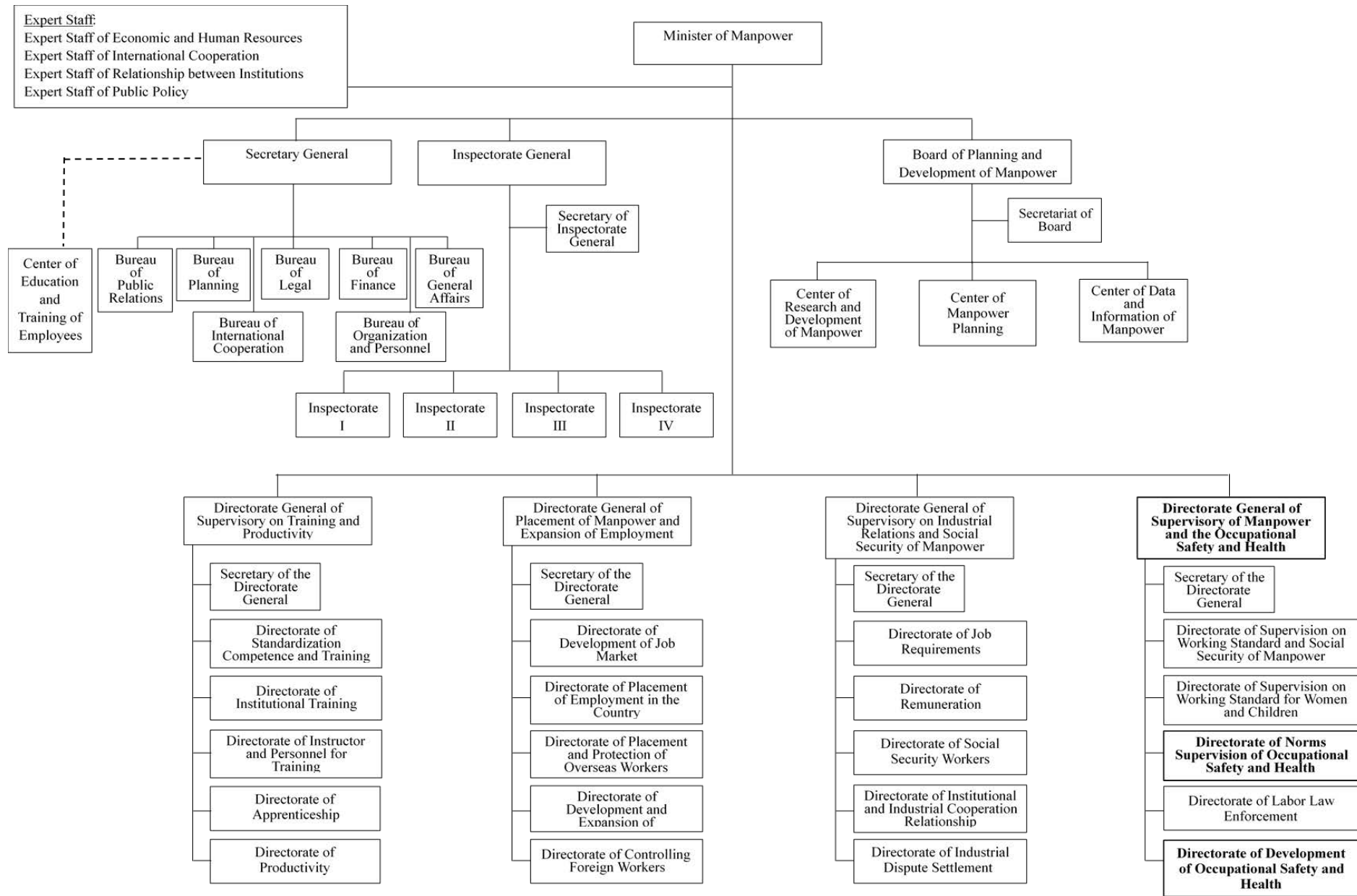


Fig.1.4 Organization: Ministry of Manpower (November, 2016)

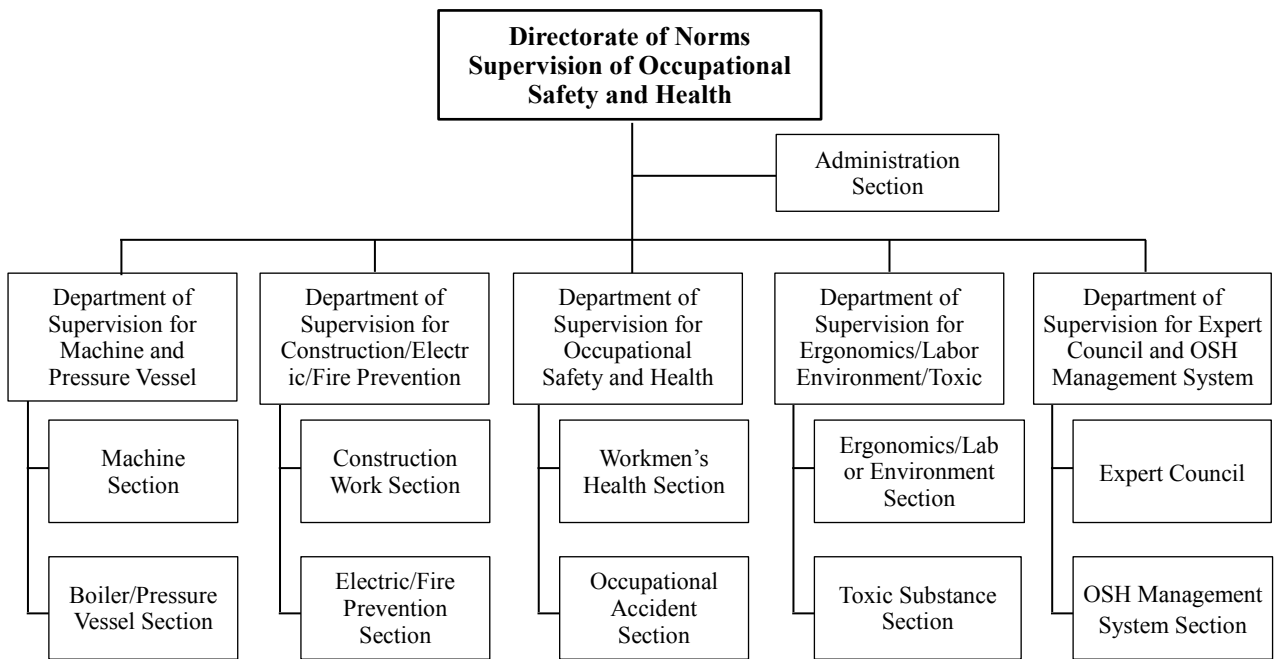


Fig.1.5 Directorate of Norms Supervision of Occupational Safety and Health

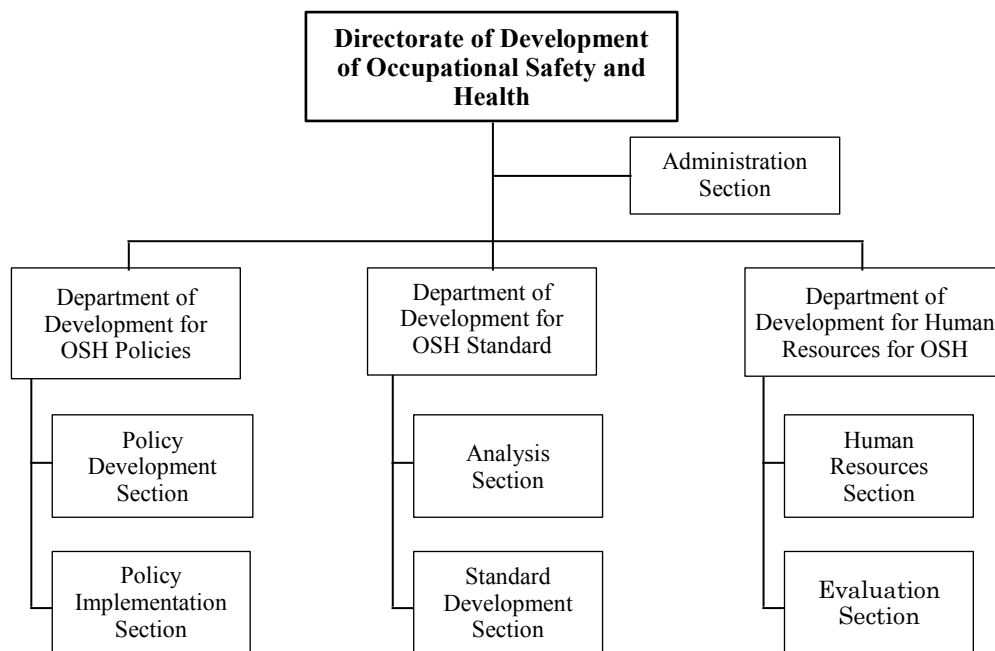


Fig.1.6 Directorate of Development of Occupational Safety and Health

1.4. Positioning of Occupational Safety and Health on National Policies

Through the questionnaire to the Ministry of Manpower, following points of positioning of OSH were confirmed.

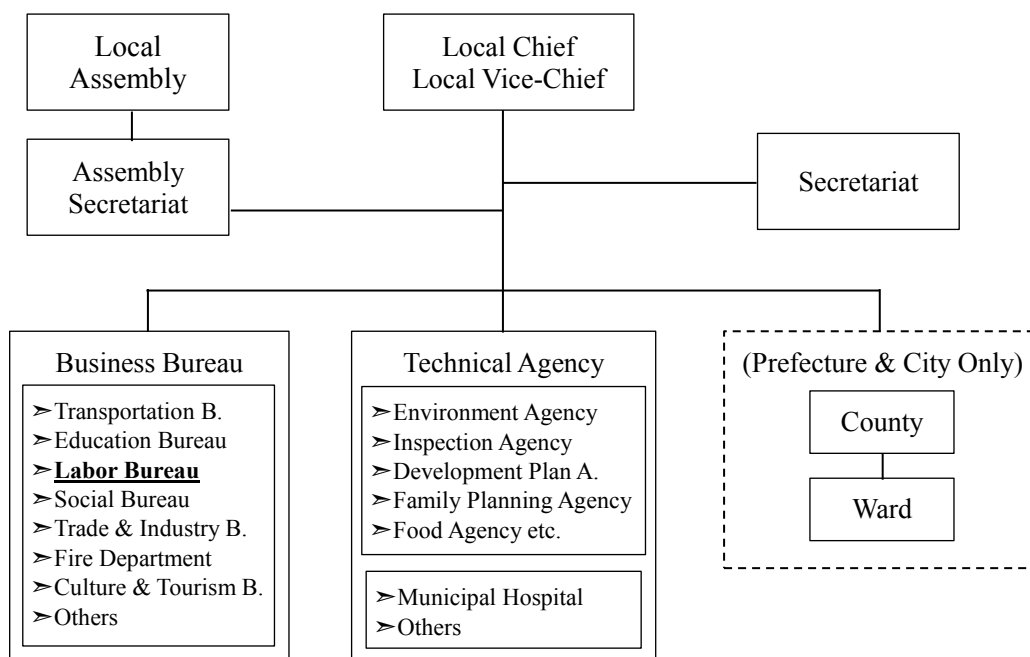
- By Ministry Ordinance No.1 of 1980, it is stipulated that all and every workplace including construction projects shall execute the required items on OSH and shall report it to Labor Inspection Office.
- Business Operator (Project Owner) is explicitly responsible for Occupational Safety and Health of the workplace. The details of OSH are stipulated by laws, regulations and standards.
- By Ministry Ordinance No.4 of 1987, it is stipulated that all and every workplace have to establish Occupational Safety and Health Committee (P2K3).

1.5. Local Government, Branch Office of Central Government

As of 2016, Labor Bureaus are set up in 34 provinces, and have functions for the overall field of labor (employment, labor dispute, arbitration and mediation) including occupational safety and health.

In this study, it was not able to investigate the actual situation of local government in detail. However, it is deemed that by the decentralization, local governments are administering in the field of OSH as well based on the provincial regulations which are made taking their own circumstances into consideration, not being commanded directly by the Ministry of Manpower, but observing the laws and ordinances issued by the central government.

Fig.1.7 shows the concept diagram of the local government of Indonesia.



(Source: Local Autonomy of Indonesia: Council of Local Authorities for International

Fig.1.7 Typical Organization of Local Government of Indonesia

1.6. Status of Occupational Accidents in Indonesia

1.6.1. Number of Occupational Accidents

As for the statistics of work-related accident in Indonesia, they are not reliable due to the incomplete accident report system and low participation rate of workmen's accident compensation system.

Even the department of Ministry of Manpower is not grasping the real numbers except data from the Social Security Agency.

Table 1.7 Work-Accident Cases in Indonesia (2001-2010)

(Number of persons unless otherwise specified)

Year	Total Number of Workplace Accidents	Deaths	Full-Disability	Partial-Disability	Functional-Disabilities	Recuperated
2001	104,774	1,768	280	4,923	7,363	90,440
2002	103,804	1,903	393	3,020	6,932	91,556
2003	105,846	1,748	98	3,167	7,130	93,703
2004	95,418	1,736	60	2,932	6,114	84,576
2005	99,023	2,045	80	3,032	5,391	88,475
2006	95,624	1,784	122	2,918	4,973	85,827
2007	83,714	1,883	57	2,400	4,049	75,325
2008	93,823	2,124	44	2,547	4,018	85,090
2009	96,314	2,144	42	2,713	4,380	87,035
2010	86,693	1,965	31	2,313	3,662	78,722

(Source: PT. Jamsostek (Social Security Agency) and the Ministry of Manpower)

(Social security system in Indonesia by PT. Jamsostek has been changed to the Comprehensive Social Security System - BJPS in 2014. Detail is in 2.6.)

An interesting report exists which would help to understand the situation in Indonesia.

(by Muchamad Darisman, Executive Director, Local Initiative for OSH Network- Indonesia (LION))

Most victims of the work-related accidents do not receive adequate compensation. There is a considerable number of issues related to OSH in Indonesia, such as unprotected workers exposed to toxic and hazardous materials in the production process, weak law enforcement of existing regulations, and the lack of inspection by government officials, which have remained mostly unaddressed.

Workplace death rates are high and underreported. An official Indonesian government statement says that more than nine people die each day in workplace accidents. The actual death rate is expected to be far higher because the government social security agency, PT Jamsostek, takes into account only those workplace accidents in which the victims are its members. Many companies do not register their workers with PT Jamsostek, so the number of deaths reported to the government remains low.

On average, there have been nearly 100,000 cases of occupational injury each year reported to Jamsostek. The data above is taken from 9 million formal workers who are members of the Jamsostek

program. This means that there are 100 million Indonesian workers whose health and work safety are not recorded in the above statistics. The majority of unrecorded workers are from the informal sector, with more vulnerable labor relations than formal workers, both in terms of wages and working conditions. It is estimated that these figures would be much higher if all workers were included in the data.

The above-mentioned situation was confirmed in the interview with Ministry of Manpower. But there are various problems such as Indonesia is a quite large country and the shortage of inspection staff as well, are piling up which hinder to pursue the accuracy of statistics, therefore, the situation would not be drastically improved in the near future.

It should be noted that the fact of nine tenth (90%) of unregistered workers does not simply mean that only one tenth (10%) of accidents has been reported. When the total number of workers nationwide is approximately 115million (see 1.1.7.), the numbers of self-employed workers in agriculture, fishery, service sector and so on should be deducted from the total workers who would be counted as occupational accident. On the other hand, the employers are excluded from the work-related compensation.

Considering these situations, it would be reasonable to estimate the probable number of occupational accidents and victims are at least several times greater than those of officially published.

1.6.2. Occupational Accident by Sectors

The following table shows the situation of occupational accidents by each industrial sector.

Table 1.8 Work-Accident Cases by Sector (2010)

Industry	Ratio
Construction	31.9%
Manufacturing	31.6%
Traffic Accident	9.3%
Mining	2.6%
Forestry	3.8%
Others	20.0%

(Source: PT. Jamsostek (Social Security Agency) and the Ministry of Manpower)

1.6.3. Traffic Accidents and Commuting Accidents in Indonesia

Traffic accidents in Indonesia are increasing year by year with rapid economic development. The number (approximately 100 thousand cases in 2014) is nearly eight times comparing with that of 15 years ago, and fatalities (approximately 28 thousand in 2014) increased to almost three times. (Table 1.9)

As for traffic accidents during commuting are not counted as occupational accident in Japan, however, they are regarded as occupational accidents for insurance purpose. On the other hand, they are treated as

just one of the types of traffic accidents in Indonesia.

Thus, the statistics of traffic accidents would have included considerable number of accidents during commuting taking the status of traffic condition in Indonesia into account. But they are not regarded as a form of occupational accidents, thus they are not reflected in the occupational compensation system.

Table 1.9 Traffic Accidents in Indonesia

Year	Number of Accidents	Fatalities	Severely Injured	Amount of Loss (Million Rupiah)
2000	12,649	9,536	7,100	36,281
2001	12,791	9,522	6,656	37,617
2002	12,267	8,762	6,012	41,030
2003	13,399	9,856	6,142	45,778
2004	17,732	11,204	8,983	53,044
2005	91,623	16,115	35,891	51,556
2006	87,020	15,762	33,282	81,848
2007	49,553	16,955	20,181	103,289
2008	59,164	20,188	23,440	131,207
2009	62,960	19,979	23,469	136,285
2010	66,488	19,873	26,196	158,259
2011	108,696	31,195	35,285	217,435
2012	117,949	29,544	39,704	298,627
2013	100,106	26,416	28,438	255,864
2014	95,906	28,297	26,840	250,021

(Source: Statistics Indonesia: 2014)

1.7. Related Organizations of Occupational Safety and Health

1.7.1. National Occupational Safety and Health Council (DK3N)

The National Occupational Safety and Health Council is a semi-governmental organization established based on Minister Ordinance No.125 of 1982. It is a consultative body for Minister of Manpower consisting of government, labor union and employer, under the influence of Ministry of Manpower.

(DK3N is Indonesian abbreviation of National Occupational Safety and Health Council: Dewan Keselamatan dan Kesehatan Kerja Nasional)

(1) Basic Duty and Functions of DK3N at the Time of Formation

1) Basic Duty of DK3N

The basic duty of DK3N as a national-level supporting organization is to provide effective suggestions and opinions with regard to various problems on the national occupational safety and

health, with or without a request from the government (Ministry of Manpower).

2) Function of DK3N

In order to realize the basic duty, DK3N carries out the following functions.

- a. To collect and process related data of occupational safety and health at national-level as well as provincial-level.
- b. To assist Minister of Manpower regarding management of Local Occupational Safety and Health Council (DK3W) and Implementation Standard Committee for Occupational Safety and Health (NK4) through activities such as investigation, education, training, improvement and the nationwide promotion of safety awareness.

(2) Reform of DK3N

With the direction change of decentralization as previously mentioned, the activities of DK3N are experiencing a big reform.

Following the latest information regarding the reform of DK3N was obtained at the interview with the director-general of Directorate General of Supervisory of Manpower and the Occupational Safety and Health.

- a. Based on Minister Ordinance No.18 of 2016, the structure of DK3N is determined to reform. Previously, the structure was such as, Central (N) – Province (P) – Municipality (D). With the reform this time, the functions on occupational safety and health of Municipality (D) are abolished, and Province (P) is given the role to control and directs its lower administrative units in this aspect.
- b. There is DK3N as the organization of the central government and DK3Ps (P: Provinsi=Province) are set up for each province. (At present, the country consists of 34 provinces. Two more provinces are planned to establish in the near future.)
- c. New system of DK3N is not functioning yet because the personnel affairs have just been announced. The system consists of the following five committees.
 - i) Committee for laws and rules
 - ii) Committee for occupational accidents
 - iii) Committee for communication, information and education
 - iv) Committee for international cooperation
 - v) Committee for safety awareness building activities
- d. Both of DK3N and DK3P consist of government staff, employers and labors who participate through unions.
- e. Following action plans are given as targets of actions of DK3N and DK3P.
 - To advise to the Minister and the Governors respectively regarding occupational safety and health
 - To promote management of occupational accidents to personnel concerned and to the people of the country. And to aim “Zero Accident” by publicizing laws and rules through public notification
- f. DK3N is intending to promote the concept of “Occupational Accident Zero” to junior high school

student level by 2020. It will be proceeded by (iii) Committee for Communication, Information and Education by implementing the campaign to provide knowledge of occupational safety to the students.

- g. The authority for occupational safety and health was once transferred to the municipalities through decentralization, however, the structure is now changing for the provinces to administer the issues. The central government will prepare the national safety plan and inform it to provinces. But it does not intend to keep the plan of the province under control. The provincial government is independent from the central government in this aspect, and makes its own plan based on the plan by the central government and implements it accordingly. In this meaning, DK3N and DK3P is not in a hierarchy relation, thus DK3N does not order or direct DK3P.
- h. DK3N is now in a transition period, however, most of its activities in the past will be maintained. The Ministry thinks that the government policies for occupational safety and health became easier to spread to local regions by transfer of the authority from municipality to province.

1.7.2. Occupational Safety and Health Center (PK3)

(1) Profile of Occupational Safety and Health Center

- The Occupational Safety and Health Center (Pusat Keselamatan dan Kesehatan Kerja: PK3) is a training facility for occupational safety and industrial hygiene. Its object is to improve various fields of safety and hygiene by providing technical services regarding occupational safety and health.
- The center owns some training equipment such as a crane and a boiler etc. given by JICA through the technical cooperation project (1995~2000). Most of the equipment have become deteriorated but are still in use for training.
- This sort of facilities exists 20 in the country, and among them, 6 are directly operated by the Ministry of Manpower, and other 14 are operated by the provincial governments. However, only the headquarter in Jakarta has training equipment such as described above.
- The headquarter in Jakarta has 55 staff and the annual budget is approximately 20 billion Rupiah (approx. 200 million Yen).

(2) Activity Outline

- Education and training for persons concerned with construction
- Monitoring, measurement and evaluation of the harmful substances for environment

Note: Training programs in Indonesia must be carried out by private companies autolyzed by the Ministry of Manpower. PK3 is not allowed to make any profit by the law.

1.7.3. Association of Construction Occupational Safety and Health Experts (A2K4-Indonesia)

The Association of Construction Occupational Safety and Health Experts (The Association hereinafter) was established in 1998 by the government (Ministry of Manpower and Transmigration, then), but has been run as a non-official organization. It is registered and authorized by the government as an expert organization for the field of construction safety and health.

(A2K4 is Indonesian abbreviation of Asosiasi Ahli Keselamatan dan Kesehatan Kerja Konstruksi)

(1) Object of Establishment

- 1) To support the government with regard to preparation of laws and rules, control, monitoring and promotion of occupational safety and health
- 2) To develop practitioners (safety staff of construction site) and experts for construction safety and health and to improve their capacities.
- 3) To establish the authorities of the practitioners and experts of construction safety and health and to activate their activities in Indonesia
- 4) To promote development of the safety culture in Indonesian society, in all industries and people's life.

(2) Outline of the Association

- The headquarter is locate in Jakarta, and 29 branches in most of the provinces. At present, nearly 6,000 companies have registered with the association.
- Most of staff are from construction companies with some from consultant companies and independent consultants.
- The Association is operating with its earnings and annual dues, there is no monetary assistance from the government.
- Main source of earnings are fees for training, seminar and certificate issuance charges etc.

(3) Activities

The Association is carrying out various activities for each objective as follows.

Object 1) Preparation of laws

- Development of laws for occupational safety and health
- Monitoring and evaluation of occupational safety and health management system on public works

Object 2) Development of safety practitioners and experts for construction

- Issuance of certificates for the required trainings
- Holding seminars and workshops

Object 3) Activation of construction safety practitioners and experts

- Support and cooperation for activating their activities

Object 4) Development of safety culture

- Consultation for construction companies regarding safety
- Support for implementation of the government policies
- Issuance of certificates
- Holding exhibitions
- Construction of framework of cooperation with other organizations
- Comparison study of occupational safety and health problems with other countries

1.7.4. Occupational Safety and Health Committee (P2K3)

The Occupational Safety and Health Committee (Panitia Pembina Keselamatan dan Kesehatan Kerja: P2K3, The Committee hereinafter) was established based on Minister Ordinance No.4 of 1987.

Setting up of the Committee is obligatory for certain area of companies, and the Ministry of Manpower is working to promote of the committee system. The system is similar to the Occupational Safety and Health Committee system in Japan.

(1) Workplaces that Establishment of the Committee is Obligatory

- a) Workplace with more than 100 workers
- b) Workplaces with considerable danger such as explosion, fire or toxic gas, even if less than 100 workers.

(2) Structure of the Committee

- a) The Committee consists of the chairman, secretariat and members from each side of employer and workers.
- b) The secretariat of the Committee is the safety and health expert of the company.

(3) Responsibility and Function

- a) The Committee is required to submit proposals or the result of study about the problems on occupational safety and health to the employer/manager, regardless with or without their request
- b) The Committee has following functions to perform these responsibilities.
 - i) To collect and analyze data about occupational safety and health in workplaces
 - ii) To direct and explain to workers about following items.
 - Possible hazard in workplace including fire and explosion and the preventive measures against them
 - Factors which impede efficiency and productivity of labor
 - Protective equipment
 - Safe working methods and working manners
- c) The Committee shall support employers or managers on the following matters.
 - Evaluation of working methods, schedule and work environment
 - Determination of the corrective action with the most preferable alternative measure
 - Development of the risk management system for occupational safety and health
 - Evaluation of the causes of accident and industrial disease and the necessary actions
 - Instruction and study in the fields of occupational safety, workplace health and ergonomics
 - Monitoring of nourishment of the workers and food supply at the workplace
 - Inspection of equipment for safety and health
 - Performing services for workers' health (medical checkup)
 - Setting up of research laboratories for occupational safety and health, implementing tests in the laboratory, evaluation of the test results
 - Performing administrative works for occupational safety, industrial hygiene and workplace health

2. Present Status and Problems in Occupational Safety and Health Administration of Indonesia

2.1. Inspection System and Accident Reporting System on Occupational Safety and Health

2.1.1. Inspection System on Occupational Safety and Health

Act No.1 of 1970 Article 5 defines the Labor Inspector and the Occupational Safety and Health Inspector (OSH Inspector hereinafter). The responsibilities and obligations are stipulated in Minister Ordinance No.3 of 1978.

(1) Authority of Labor Inspector

- 1) To be able to enter any workplaces
- 2) To request explanation (spoken or written) from employers, managers and workers about the conditions of occupational safety and health
- 3) To direct employers, managers and workers at the workplace concerned to fulfill the necessary conditions of occupational safety and health.
- 4) To inspect directly the situation of observance of laws and rules for occupational safety and health regarding machines, devices, apparatus, raw materials, work environment, work conditions, work methods, production processes etc.
- 5) To order to improve, change or exchange if there is any insufficiency or error in the conditions of occupational safety and health
- 6) To prohibit from using dangerous devices, apparatus and production processes
- 7) To exercise authority to investigate the violation of laws and ordinances of occupational safety and health

(2) Duties of OSH Inspector

- 1) To implement inspection at all workplaces
- 2) To inspect protective devices for occupational safety and health
- 3) To give instructions and explanations about all the conditions for occupational safety and health to employers, managers and workers.
- 4) To report the result of inspection to the Director and maintain secrecy on anything that may come to knowledge in the course of official duties.

(3) Facts and Problems of Inspection System

- As of 2016, there are 1,740 Labor Inspectors and 264 OSH Inspector in Indonesia.
- There are approximately 14,000 project under control of the Ministry of Public Works only (excluding under provincial governments). The number of Inspectors is far from sufficient.
- The capacity of Inspectors could not be clarified in this study, however, few inspector can manage the new technologies in the country such as Shield Tunneling Method.
- As stated in (1), 7) above, the Inspectors have authority to investigate. But they do not have the strong authority to investigate, arrest and send to prosecutor's office like Labor Standards Inspector

in Japan.

- The actual inspections remain in confirmation of documents deficiency. Field inspection for situation of the actual safety management is seldom performed.

2.1.2. Accident Reporting System on Occupational Safety and Health

(1) Accident Reporting System

Act No.1 of 1970 Article 11 stipulates reporting obligation for occupational accidents.

Article 11: Accidents;

- A manager shall report every accident occurring in a workplace of which is responsible to the official for this purpose by the Minister of Manpower.
- The procedures regarding the reporting of accidents and for their investigation by the official referred to in (1) above shall be prescribed by legislative regulation.

The Procedures for investigation and reporting are stipulated in Minister Ordinance No.3 of 1998 that the manager and the employer shall report every accident occurred in the workplace which he directs.

1) Accidents that are required reporting

- Occupational accidents
- Fire, explosion and dangerous waste treatment
- Other dangerous accidents (Accidents which may become causes of casualties and disease in the course of employment.)

2) Employer who is responsible to report

- Employer who has joined the Occupational Accident Compensation System
- Employer who has not joined the Occupational Accident Compensation System

3) Time limit and destination of reporting

- The report shall be submitted to the local labor office (KANDEP) using the specified form within 48 hours after the accident occurred.
- Reporting can be made orally before submitting the written report.

4) Penalty for violation of reporting obligation

- Based on Act No.1 of 1970 Article 15, imprisonment of up to three months or fine of up to 100,000 Rupiah shall be inflicted.

(2) Fact and Problems of Accident Reporting System

- As described in 1.6.1., there are so many unreported accidents because only few employers and workers (around 10% of the total of workers) registered in the Occupational Accident Compensation System
- According to Act No.1 of 1970, employers are obliged to report every accident, however, the penalty system for neglecting the obligation is not functioning. The penalty stays as stipulated in Act No.1 of 1970, is 100,000 Rupiah (about 10 US dollars in present worth).
- It is also cannot be said that the Ministry of Manpower is active to grasp the actual status of occupational accidents, is actually relying on the report from BPJS (State-run Social Security

Company).

- In order to make the statistics of occupational accidents reliable, it is essential to establish a strict penalty system for neglecting the responsibility of accident reporting, and to promote registration in the workers' compensation as well as to construct the effective structure of transferring information of accidents.

2.2. Safety Education

Education for occupational safety and health in Indonesia is not on the satisfactory level yet. As the number of inspectors (Occupational Safety and Health Inspectors: 264, Labor Inspectors: 1,740) shows the fact that the country needs to reinforce the education.

Education and training programs are determined by law. Government agencies and some private organizations are conducting safety education and training in accordance with the programs. However, the number of the education and training is not far from enough and also there are problems especially in the training due to lack of construction equipment and other facilities for the training.

2.2.1. Education Program of Occupational Safety and Health

Minister Instruction No.20 of 2004 stipulates required curriculums regarding education and certificate of the occupational safety and health in the construction industry. The curriculums consist of 40-hours, 50-hours, 90-hours and 100-hours depending on participants such as engineers, managers, scaffolding supervisors etc. (For an example of curriculum, see Table 2.1)

Organizations conducting safety education are;

- Government agencies such as the National Occupational Safety and Health Council (DK3N) and The Occupational Safety and Health Center (PK3)
- Private organizations accredited by the Ministry of Manpower such as The Association of Construction Occupational Safety and Health Experts (A2K4) and other organizations

Each education organization determines the actual contents of education in accordance with the pre-determined curriculum. But A2K4 expressed their opinion that there are some parts in the curriculums unfitting with the present situation due to progress of technologies and social changes, thus the curriculums need to be reviewed.

Table 2.1 Example of Safety Education Curriculum for Construction Engineer

No.	Items	Hours
1	Act No.1 of 1970 on Safety	2
2	Minister Ordinance No.1 of 1980 for Safety and Health of Construction Work	2
3	Knowledge of Construction Engineering	2
4	Basic Knowledge of Occupational Safety and Health (OSH)	4
5	Management and Operation of OSH	2
6	Occupational Safety and Health of Construction Project	2
7	Environmental Management	2
8	Occupational Safety and Health for Construction Equipment	6
9	Firefighting System	2
10	Emergency Correspondence and Preparations	2
11	Company Hygiene and Project	2
12	Capacity and Training of Occupational Safety and Health	2
13	Knowledge of OSH Audit of Construction Project	2
14	Site Patrol and Document Preparation	14
15	Seminar	4
16	Final Evaluation (Examination)	4
	Total Seminar Hours (Minimum)	50

2.2.2. Education by National Occupational Safety and Health Council (DK3N)

One of the functions of DK3N is “To assist the Minister of Manpower with regard to management of Local Occupational Safety and Health Council (DK3W) and Implementation Standard Committee for Occupational Safety and Health (NK4) through activities such as investigation, education, training, improvement and nationwide promotion of safety awareness”. (Refer to 1.7.1.)

(Hereunder from Oversea Investigation, Japan International Center for Occupational Safety and Health)

(1) Example of Seminars

- National Seminar for Occupational Safety and Health Audit
- Disability Sentence Due to Industrial Disease and Occupational Accident Seminar
- National Seminar for Occupational Safety and Health in Construction Industry
- Workshop for Occupational Safety and Health Audit
- Development of Human Resource and Implementation of OSH Training Program Workshop

(2) Publications

- Guidebook and Evaluation Standard for Disability Due to Industrial Disease and Occupational Accident

- Guidebook for Audit of Occupational Safety and Health
- Information Book and Leaflet for Seminar, Education and Training Program

(3) Education and Training Program

- Safety of Construction Work
- Occupational Health
- Safety Management
- Safety for Supervisors

2.2.3. Education by Association of Construction Occupational Safety and Health Experts (A2K4)

A2K4 is one of the important organizations in the field of safety education in Indonesia along with other private organizations. The objective 2) of A2K4 says that they develop practitioners and experts for construction safety and health. (Refer to 1.7.3.) For that purpose, they are actively holding seminars, workshops and trainings with issuance of certificates. (Table 2.2)

Table 2.2 Results of OSH Education and Training by A2K4

Education, Training, Seminar	Number of Times	Participants
1. Construction OSH Officers	194	6,540
2. General OHS Officers	1	20
3. Scaffolding Supervisors	6	98
4. Scaffolders	—	—
5. Confined Space	1	35
6. Fire Fighting	5	75
7. First Aid	5	77
8. National Seminar	Once per year	50/seminar
9. Safety Plan Workshop	1	200

(The data is the accumulated number since establishment of A2K4 in 1998)

The followings are information obtained in the interview with A2K4.

- A2K4 is holding nearly 60 types of education program including the safety training of the construction.
- A2K4 has constructed the relationship of cooperation and collaboration with the National Qualification Authorization Agency (BSNP: Badan Standar Nasional Pendidikan) and the Construction Qualification Authorization Agency (LSPK3 : Lembaga Sertifikasi Profesi K3).
- Every enterprise has to allocate OSH officer appointed by the Ministry of Manpower. OSH officers can obtain the certificate of the Ministry by taking the training held by A2K4, and can perform the same roles as government inspectors.
- There are not only A2K4 but also many other private organizations for safety training in the country.

- There are three levels (Elementary, Intermediate, Advanced) of certifying OSH officers. The names of certification are Technical, Engineer and Professional (Expert) respectively.
- In order to bid for the construction projects of the Ministry of Public Works, the intermediate qualification is required. For taking Elementary training, the participant is required to have more than two years of experience. With three more years of experience, he can take the intermediate training, then, with another three years of experience accumulated, he can take the advanced training.

2.2.4. Education by National Center of Ergonomics, Occupational Safety and Health (HIPERKES)

The outline of education by National Center of Ergonomics, Occupational Safety and Health (“The Center” herein after)

(1) Education, Training

- Education and Training: The Center is conducting education and training regarding safety and health, ergonomics and so on for the newly employed workers and the industrial doctors although the programs are not necessarily abiding to the laws.
- Expert Training: Industrial hygiene special course by the Center
- Occupational Hygiene Course
- Cooperation with Universities: The Center accepts the students in a master’s course of occupational medicine and gives the regular unit to the students.

(2) Occupational Hygiene Services to Workplaces: Instruction for environment hygiene, health care etc.

(3) Research as Support Section for Education and Training, and Occupational Hygiene Services

- Hygiene of the enterprises and workplaces
- Safety and Health
- Toxicology
- Ergonomics

Research Result: The Center conducts about 30 applied researches per year. Most of them are about problems occurred in the services at workplaces.

2.3. License, Inspection System

2.3.1. License Authorization System

The government agencies relating to licence authorization in Indonesia are as follows;

- a. National Qualification Authorization Agency (BSNP: Badan Standar Nasional Pendidikan)
- b. Construction Qualification Authorization Agency (LSPK3 : Lembaga Sertifikasi Profesi K3)

BSNP authorizes education and training courses of private organizations (such as A2K4-indonesia,

see 1.7.3.) in license authorization process, by prescribing required contents of education and training.

LSP K3 issues licences for the type of occupations which require licence based on the certificate (certifies attendance of the course) issued by private organizations.

2.3.2. Qualification for Occupational Safety and Health

Minister Ordinance No.2 of 1992 stipulates that the employer shall appoint manager and expert for occupational safety and health matters at the workplace.

(1) Manager

Person whose duty is to directly manage the workplace or part of it. (Person who is responsible for giving safety instructions to workers and other related aspects.)

(2) Occupational Safety and Health Expert (OSH Inspector)

OSH Expert is the expert who is appointed by the Minister of Manpower to secure observance of occupational safety laws, and is not staff of the Ministry. The expert is doing his duty belonging to the company, and with the same authority as government inspectors given by instruction of the chief of the labor office, is able to enter any workplace as well as his own. There are experts who have a license obtained by accomplishing required training course, and are also some who obtained the license after they completed the safety-related subject course in the university.



Fig.2.1 License of OSH Engineer

2.3.3. Other Qualifications

Qualifications for mobile crane work, back hoe work, crane operators, welding work, electric work, lightning rod setting etc. can be obtained by participating the respective two to five days' skill training course held by the local office of the Ministry of Manpower or private companies commissioned by the Ministry.

For example, the license of crane operation consists of three classes as follows with respective requirement for each class.

- Regulation of Minister of Manpower No. Per. 01/Men/ 1989 on Qualification and Requirements for Lifting Crane Operator
 - a. Class I operator (capacity more than 50 tons/hour)
 - b. Class II operator (capacity more than 25 to 50 tons)
 - c. Class III operator (maximum capacity of 25tons)



Fig.2.2 Examples of License (Operator)

2.4. Safety and Health Measures in Construction Sites

2.4.1. Guideline of Occupational Safety and Health in Construction

The flow of the application of occupational safety and health laws can be shown as following figure.

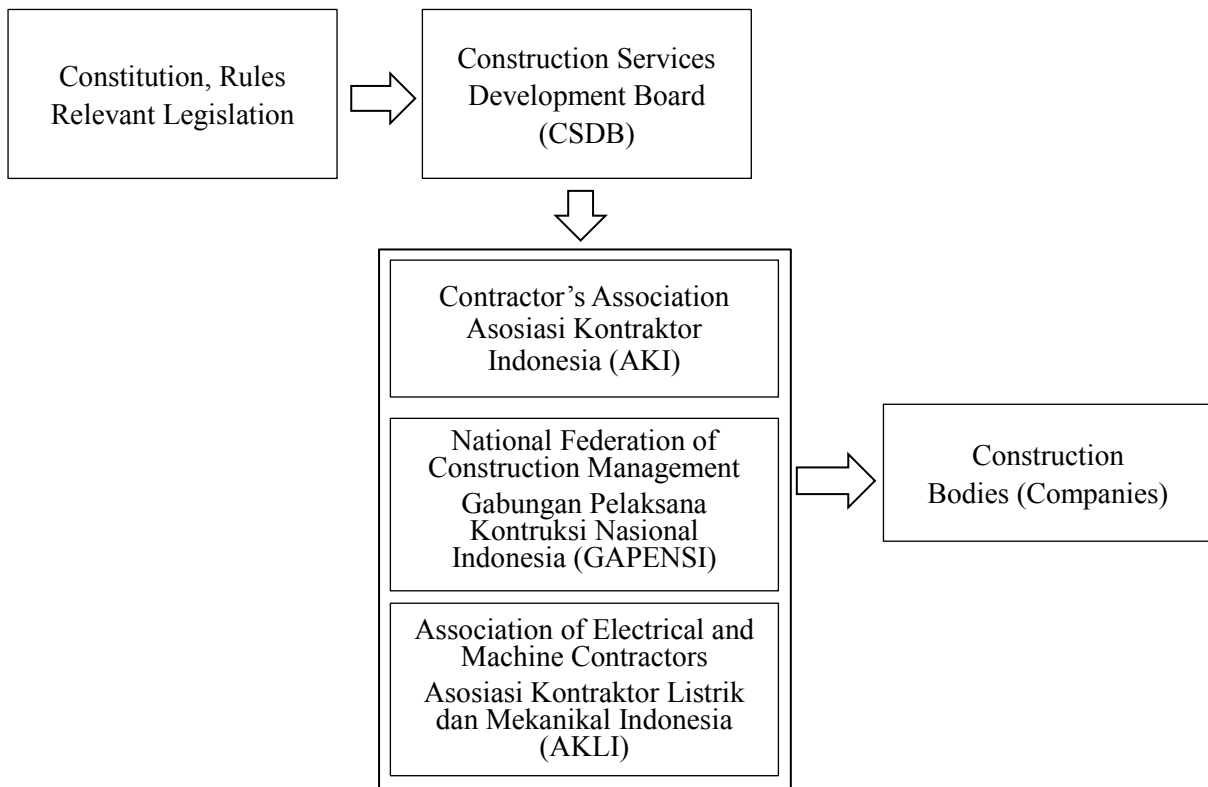


Fig.2.3 Flow of the Application of Occupational Safety and Health Laws

The most fundamental law for occupational safety and health in construction is the Minister Ordinance No.174 of 1986 issued jointly by the Minister of Manpower and the Minister of Public Works, “OSH Activities in Construction Sites”.

By the Ordinance, all people concerned with construction shall observe the rules of “Manual Book on Occupational Safety and Health in Construction Site (Tentang Keselamatan Dan Kesehatan Kerja Pada Tempat Kegiatan Konstruksi)”

The above manual elaborates on safety in detail with its management requirement, technical requirement and about various works such as scaffolding, temporary stairs, lifting facilities, machine setting, concrete work, and so on.

2.4.2. Safety and Health Measures at Construction Site of Japanese Company

The following information was obtained from the site visit of MRT (Jakarta Mass Rapid Transit) by the study team. The project section has been constructed fully by a Japanese construction company. Thus, the information does not necessarily mean the present status of construction sites in general in Indonesia. However, the measures taken there can be thought as a milestone of future status of OSH measures in Indonesia.

- Shield Tunneling Method is a new and first technology in Indonesia. Japanese engineers are teaching to the local engineers the technique on the job. Transfer of the technique has been made smoothly.
- Because any foreigner cannot become the OSH manager by rule, it is difficult to introduce Japanese safety management directly. Therefore, local staff who studied the safety management in the university and obtained qualification was hired and a Japanese expert is acting as the advisor to him.
- Other safety staff are, in general, novice for safety, thus the Japanese expert has to educate them from the beginning.
- At this site, physical exercise and stretching have been carried out every morning which were never applied in this country.
- At another building construction site being constructed by the same company, the safety net system was applied which can be rolled up by the tower crane. The system was imported from Singapore and improved efficiency and safety of work.
- Frequency of safety patrol was increased. Also, joint safety patrols with safety officers from other construction sites are conducted. Unsafe factors found through safety patrols, are taken pictures, and measures for improvement are taken. The result is to be submitted in the written report within one week.

2.5. Occupational Accident Compensation System

2.5.1. Present Social Security System in Indonesia

In comparison with developed countries, the social security system of Indonesia has many unsolved problems. However, the Indonesian Government has established new social security system to break the present situation. The system consists of two system called BPJS for Health (Badan Penyelenggara Jaminan Sosial - Kesehatan) and BPJS for Works (Badan Penyelenggara Jaminan Sosial - Ketenagakerjaan).

For Occupational accidents/diseases, a system called Jamsostek (Jamian Sosial Tenaga Kerja: State-run Company) existed which was not satisfactorily functioning. In order to break the situation, a new Act No.40/2014 concerning National Security System was promulgated. The purpose of the Act is to manage many systems comprehensively which used to be applied to various group of object people such as civil servants, soldiers, workers, and so on.

Main points of the difference are shown in the table below.

Table 2.3 Comparison of Social Security Systems

Security	Old System		New System	
Medical Security	Jamsostek (JPK)	Voluntary Participation	BPJS-Health (BPJS Kesehatan)	Compulsory including Foreign Workers
Occupational Accident Security	Jamsostek (JKK)	Compulsory for Indonesian	BPJS-Work (BPJS Ketenagakerjaan)	Compulsory including Foreign Workers
Death Security	Jamsostek (JK)	Compulsory for Indonesian	BPJS-Work (BPJS Ketenagakerjaan)	Compulsory including Foreign Workers
Old Age Security	Jamsostek (JHT)	Compulsory for Indonesian	BPJS-Work (BPJS Ketenagakerjaan)	Compulsory including Foreign Workers
Pension	Pension Fund Dana Pensiun	Voluntary Participation	BPJS-Work (BPJS Ketenagakerjaan)	Compulsory including Foreign Workers

As shown in the table 2.3, as the first step, the new system aims at whole-nation medical service with mandatory participation, changed from voluntary participation of the old system. Then, it is summarized all in BPJS-Work about the occupational compensation, death security, old age security and the pension comprehensively.

In addition, as for the foreigners who were out of the coverage in the old system, the new system become the mandatory participation to foreigners staying more than six months in the country.

2.5.2. Structure of the Security by the National Social Security System

- (1) Object persons who are covered by Workmen's Compensation and the Death Security (excluding workers working in the government organization)
 - a. Workers of the company
 - b. Workers who work with an individual
 - c. Foreigners who work in Indonesia more than six months
 - d. Employers
 - e. Self-employed workers

(2) Insurance Premium

Table 2.4 Insurance Premium and Sharing Ratio

Security	Insurance Premium	Employer	Employee	Remark
Medical Security	5.0% of wages for one month	4%	1%	From July, 2015
Occupational Accident Security	0.24%-1.74% of the wage (Vary by the risk of the workplace)	Full amount	—	
Death Security	0.3% of wages for one month	Full amount	—	
Old Age Security	5.7% of wages for one month	3.7%	2%	Old age savings system
Pension	3% (for calculation purpose, the upper limit of the wage is 7 million rupiah)	2%	1%	A retirement age is 55 years old as of 2014, will be 65 years old in the future

(Source: Report of Overseas Situation, 2014 (Ministry of Health, Labor and Welfare, Japan)

Note: The upper limit of the monthly wage is 7 million rupiahs for premium calculation.

(3) Benefit and Amount for Occupational Accident Security

a. Medical services

b. Various consolation money: transportation cost to hospitals, temporary suspension of business, functional disorder, death burial cost, periodical consolation payment, rehabilitation expense, scholarship of the children of the person insured in case of death / whole body obstacle

c. Payment for the death

- Consolation: 16,200,000 Rupiah (approx. 1,370US dollars: mean value in 2014)
- Periodical consolation money: 200,000 Rupiah x 24 Times = 4,800,000 Rupiah (approx. 400US dollars)
- Burial Cost: 3,000,000 Rupiah (approx. 250US dollars)
- Scholarship: 12,000,000 Rupiah (approx. 1,000US dollars)

In section 1.6. the problem regarding the insurance participants which are very few was described, but here is another interesting description that might help deeper understanding of the situation at the time of around 2010.

(by Muchamad Darisman, Executive Director, Local Initiative for OSH Network- Indonesia (LION))
“Protection of workers as provided by the government is still discriminatory and limited. It is mainly applicable to a fraction of the labor force. Of the 30 million formal workers in Indonesia, just 9 million are registered with the government Social Security injury compensation program, Jamsostek. Meanwhile among more than 70 million informal workers, only one percent is protected by the social program.

Membership in Jamsostek is not mandatory, so many workers are left without protection in the event of workplace injuries. There is no negative impact on a company that does not register its workers with Jamsostek. They are not penalized by the government or the Social Security Agency for noncompliance in this regard. There is no incentive for companies to enroll their workers, which results in a low membership of only about 30 percent of the total formal workers in Indonesia.”

A government staff gave the study team information that the rate of insurance participants of construction work force at present remains especially low at only 0.27%, and that the government is making effort to increase the rate with a target of 5.0% by 2020.

2.6. Status and Problems in Application of OSH for Foreign Workers at Workplace and Construction Site

According to the information obtained at the MRT site, workers are all Indonesians and there is no migrant worker at all in Indonesia. This is because of big population of the country and there is no reason to use foreign workers instead of Indonesian.

Also, even if one wants to hire, for example, a Bangladeshi, there will be hardness in acquiring visa. It may be probable that the labor cost after all becomes higher than Indonesian worker.

However, there are cases of hiring foreign engineers, and some workers higher than foremen from foreign countries such as Philippines.

2.7. Status and Problems in Application of OSH for Foreign Companies (Including Japanese Companies)

As per the information at MRT, there have never been a case that a foreign company experienced discriminatory treatment by the reason of its origin. Inspections without advance notice seem to be sometimes implemented, but they have never had such inspection to date at the MRT site.

Inspections are mainly for paper checking such as the operator of construction equipment has license or not, checking of usage of PPE, oil leaking, noise and so on.

2.8. Cooperation of Other Country and International Organization

(1) Asia Pacific Occupational Safety and Health Organization

Indonesia is a regular member of Asia Pacific Occupational Safety and Health Organization (APOSHO) and DK3N is the actual agency representing Indonesia. The 28th Annual Meeting was held in Jakarta in 2013. From Japan, the Japan Industrial Safety and Health Association is participating as a regular member.

The objective of the Organization is to establish the best practice and improve the program of OSH in the area.

(2) ASEAN-OSHNET

ASEAN Occupational and Health Network (ASEAN-OSHNET) is a local network of occupational safety and health, established by the resolution at the ASEAN+3 Labor Minister Meeting that was held in May, 2006 in line with the concept of the ASEAN area center. The background of establishment of the Network

is,

1) among ASEAN+3 countries were, then, becoming more concerned about prevention of occupational accidents and industrial diseases, 2) at the International Labor Conference, Treaty No.187 and Recommendation No.197 for Framework to Promote Occupational Safety and Health were adopted, 3) a place that nations can discuss and proceed cooperation is required.

- Next five years' plan of ASEAN-OSHNET (2016-2020)
- Myanmar, Laos and Thai showed strong interest in cooperation by Japan. Also, Philippines and Indonesia that JICA conducted cooperation project in the past expressed their intention for looking for a new type of cooperation.
- Indonesia is the coordinating nation for Investigation and Research.

(Source: The 17th ASEAN-OSHNET Minutes of Council Meeting, April 2016)

(3) ASEM

The 2nd Asia-Europe Meeting Labor and Employment Ministers' Conference was held in Yogyakarta in 2008. The adopted declaration recommended 1) to improve exchange of experiences, expertise and good practice, 2) to proceed capacity building by technical cooperation.

One of the fields is OSH, and ASEM OSH Workshop is decided to hold by co-host of Indonesia and Singapore.

(4) JICA

Project to Enhance Education and Training of Industrial Safety and Health of Indonesia (Technical Cooperation Project, 1995~2000)

(5) ILO

- ILO cooperated and contributed for the Work Improvement in Small Construction Training (WISCON) by Indonesian government.
- ILO is cooperating for the efforts of Indonesia to strengthen labor inspection, reporting of occupational accidents, training, relating information and the national OSH campaign together with Indonesian government, employers and labor organizations.
- Indonesia has ratified the following ILO treaties (OSH)
 - * ILO Treaty C045: The Employment of Women on Underground Work in Mines of all Kinds
 - * ILO Treaty C120: Hygiene in Commerce and Offices
 - * ILO Treaty C187: the promotional framework for occupational safety and health

(Source: ILO HP)

3. Analysis of Collected Information, Priority Issues on Occupational Safety and Health

3.1. Proposed Approach for Solving the Priority Issues

3.1.1 Problems on OSH in Indonesia Revealed by the Investigation

(1) Laws and Regulations, and Its Enforcement

- a. Structure of laws and regulations regarding OSH is well set, however, there are undeveloped parts such as the detailed rules.
- b. Sharing roles between the central government and the local governments was not clear (in the past).
- c. Operation and enforcement of laws and regulation is not functioning well due to the vast territory of the country.
- d. Certificate and license system is undeveloped yet. Implementation of the license system is also improper, thus, some employers allow workers without license to operate construction equipment.

(2) Occupational Accidents, Statistics, Occupational Accidents Compensation System

- a. Due to the low reliability of occupational accident statistics, it is difficult to make the administrative plans for OSH
- b. Safety awareness of people of Indonesia remains quite low.
- c. The penal provisions against the companies which caused occupational accident are very light, thus penalties does not motivate companies to make effort for preventing accidents at all.
- d. Only occupational accidents are reported when the company and workers concerned have registered to the compensation system. As a result, the number of accidents reported is far less than actual cases.
- e. The system of communication with which information is transmitted from the local governments to the central government is insufficient.
- f. Registration rate to the occupational accident compensation system remains quite low (about 10% of working population, 0.27% for construction).
- g. Many workers do not know even the existence of the compensation system.
- h. Amount of compensation is low, thus, using cost for employers to improve safety is not motivated.
- i. There is no incentive nor penalty for the employers who are obliged to register to the compensation system, thus, they neglected to register to the system.
- j. There is few private insurances which complement the public compensation system.

(3) Inspection System

- a. The number of the occupational safety and health inspectors is in an absolute shortage.
- b. Capacity of inspectors is insufficient. Inspections of workplaces remain paper checking level, and do not have effect for removing unsafe factors.
- c. Training for the safety staff of companies cannot match with the demand of huge number of workplaces.

(4) Education, Training

- a. Education and training facilities are concentrated in the capital area, thus, the local level of OSH education does not improve.
- b. The education and training programs have become obsolete and does not match with the present conditions.
- c. Education and training facilities are underequipped. Especially, implementation of practical skill training using construction equipment is difficult.
- d. Budget for education and training facilities is not sufficient, thus, improvement of the facilities is difficult.
- e. Voluntary safety management activities which is very common in Japan is unpopular yet in Indonesia. The situation is one of the reasons that the safety awareness of workers remains low.

3.1.2. Priority Issues in OSH Field

It can be considered that there are two types of issues to be solved. In the first place, the issues that should be solved by the Indonesian government on its initiative, and the cooperation of other country is inadequate. Others are those that cooperation of other country is possible and effective.

For example, preparation and enforcement of the laws and regulations purely belongs to the internal affairs, thus, is not suitable for technical cooperation by other country. On the other hand, development of inspectors, improvement of education and training and its facilities are issues suitable for technical cooperation.

It would be appropriate to look at the issues to solve and approach for solving from the point of view of the possibility and suitability for cooperation and assistance of Japan.

(1) Laws and Regulations, and Its Enforcement

- To cooperate for constructing legal system that is suitable for Indonesia by introducing the system of skill training course and special education required for various construction equipment in Japan, as well as the contents of the education and training. It is also important to introduce the system of “Education Bodies Registered to Director General of the Prefectural Labor Bureau” and its effectiveness.

(2) Occupational Accidents, Statistics, Occupational Accidents Compensation System

- One of the root causes of many occupational accident lays in the low awareness of the people for safety. It will be effective to analyze the reason of high awareness for safety in Japan, and cooperate for planning and implementing public awareness campaign of Indonesia.
- In order to improve the precision of statistic of occupational accidents, cooperate for spreading of the new workmen’s compensation system (BPJS - Ketenagakerjaan) regarding penalty, incentive and dissemination activities etc.
- To cooperate for the study of private insurances system (for project and occupational accident).

(3) Inspection System

- To cooperate and support positively for development of occupational safety and health inspectors and their capacity.
- To cooperate for training of inspectors with effective inspection methods and confirmation of improvement etc.

(4) Education, Training

- To cooperate for developing and improving the education and training programs for safety staff and experts.
- To cooperate for improving the education and training facilities, especially in the local districts.
- To cooperate for introducing and spreading of the Voluntary Safety Construction Cycle of Japan.

3.2. Cooperation Resources in Japan for Solving Approach

(1) Laws and Regulations, and Its Enforcement

- Ministry of Health, Labor and Welfare
- Association of National Registration Training Organization

(2) Occupational Accidents, Statistics, Occupational Accidents Compensation System

- Ministry of Health, Labor and Welfare
- Japan Industrial Safety and Health Association
- Japan Construction Occupational Safety and Health Association
- Prefectural Labor Bureau (Insurance premium collection)
Labor Standards Inspection Office (Insurance benefit)

(3) Inspection System

- Ministry of Health, Labor and Welfare
- Labor Standards Inspection Office
- Japan Institute for Labor Policy and Training

(4) Education, Training

- Ministry of Health, Labor and Welfare
- Japan Industrial Safety and Health Association
- Japan Construction Occupational Safety and Health Association
- Veterans of construction companies (experienced in construction projects, especially in the safety management)

3.3. Points of Attention for Cooperation

Indonesian language and Malay language are said that they share about 70% of words in common. And these two countries give the impression that they are close each other ethnically and culturally. However, Indonesia seems to have a national character historically that it will not accept that Malaysia stands above Indonesia in any meaning.

One of the main purpose of this investigation is to look for the possibility if Singapore and Malaysia could be the resource countries in cooperating other countries including Indonesia in aspect of occupational safety and health.

Malaysia is the advanced county in comparison with Indonesia in the field of occupational safety and health management, however, it should be taken as a premise for planning of the international cooperation program that Indonesia would not accept such help by Malaysia.

4. -6. MALAYSIA

4. OSH Legal System, Administrative System and Accident Statistics of Malaysia

4.1 Profile of Malaysia

Located in the center of Southeast Asia, Malaysia is made up of Malay Peninsula and a part of Borneo Island, Sabah · Sarawak State, the country's land area is 333,338 square kilometers combined with the Malay Peninsula and Borneo Island. In the area of less than 90% of the area of Japan, 25% of the population of Japan live. About 60% of the country is covered with tropical rainforest. Malaysia with a population of about 30 million is a multi-ethnic country composed of Malay, Chinese, Indian, and indigenous peoples divided into many tribes.

4.1.1. Official Name of the Country

Malaysia

4.1.2. Scope of the Country (Area, Population, provinces)

Area : Approximately 330,000 km² (approx. 0.9 times of Japan)

It consists of 13 provinces and 3 federal territories

Population : 31.4 million (approx. 0.25 times of Japan)

Malaysian (approx. 67%)、Chinese (approx. 25%)、Indian (approx. 7%)

Table 4.1 Population Density Distribution

District	Province	Provincial Capital	Population (person)	Area (km ²)	Population Density (Persons/km ²)
Malay Peninsula	Kedah	Alor Setar	2,100,000	9,425	223
	Kelantan	Kota Bharu	1,760,000	15,105	117
	Johor	Johor Bahru	3,610,000	19,016	190
	Selangor	Shah Alam	6,180,000	7,930	779
	Trengganu	Kuala Terengganu	1,160,000	12,974	89
	Negeri Sembilan	Seremban	1,090,000	6,657	164
	Pahang	Kuantan	1,610,000	35,965	45
	Perlis	Kangar	250,000	795	314
	Penang	George town	1,700,000	1,031	1,649
	Perak	Ipoh	2,470,000	21,038	117
Borneo	Melaka	Melaka	890,000	1,652	539
	Sabah	Kota Kinabalu	3,720,000	73,902	50
Federal Territories	Sarawak	Kuching	2,700,000	124,450	22
	Kuala Lumpur (capital)		1,780,000	243	7,325
	Putrajaya (Administrative center)		80,000	49	1,633
	Labuan (island)		100,000	92	1,087

(Source: Department of Statistics, Malaysia, 2015)

4.1.3. Capital (Population, Location)

Capital : Kuala Lumpur (Federal Territory) Population : 176.8 ten thousand people

Latitude : 03.07 N Longitude : 101 .33 E

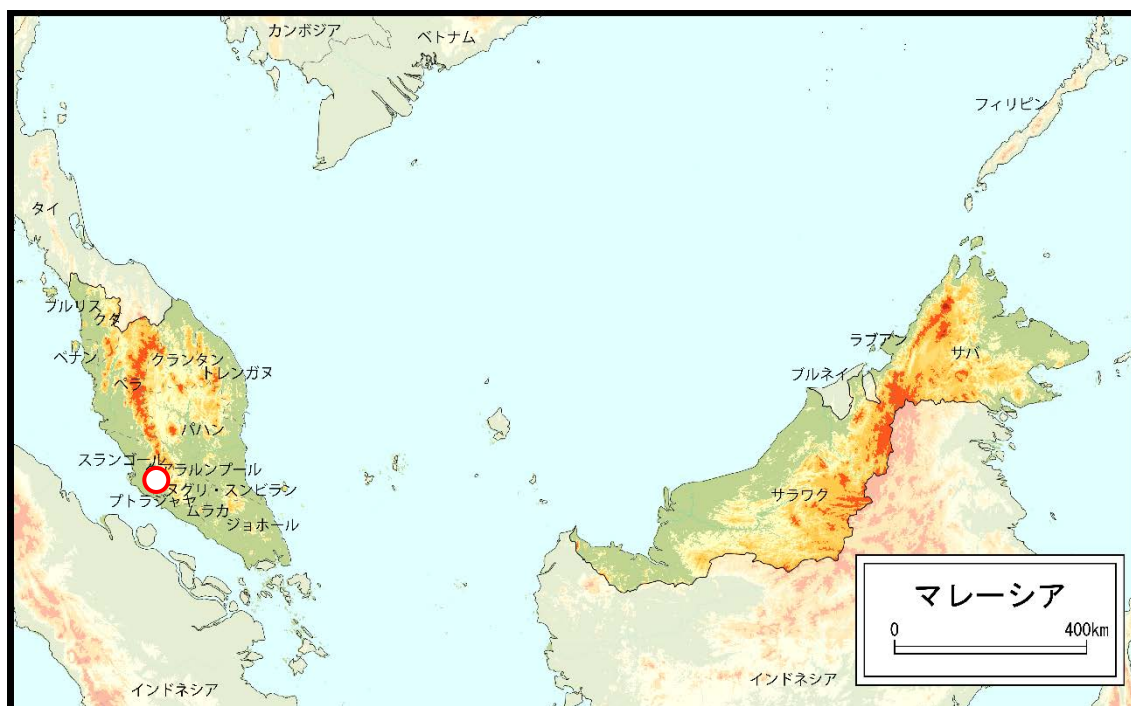


Fig.4.1 Map of Malaysia (by Study Team)

4.1.4. Climate, Temperature at Malaysia

Kuala Lumpur The mean highest temperature 28.0°C The mean lowest temperature 26.7°C
Annual rainfall 2,672mm

4.1.5. Religion, Language

Religion: Islam (Federal Religion) (61%), Buddhism (20%), Confucianism・Taoism (1.0%),
Hindu(6.0%), Christian (9.0%), Others

Language: Malay (Bahasa Malaysia), Chinese, Tamil, English

4.1.6. Currency

Ringgit (1USD= 4.46 MYR)

4.1.7. Number of Workers (2014)

Number of employed persons aged 15 years old : 13,532,000
Agriculture, Forestry, Fishery : 1,660,000
Construction industry : 1,226,000
Manufacturing : 2,266,000

(Source: UN, National Accounts Main Aggregates Database_2016)

4.1.8. GDP (2014)

Nominal: 326,933 million U.S. dollars
Nominal GDP per capita: 10,933 U.S. dollars
Real GDP Growth Rate: 6.0%

(Source: UN, National Accounts Main Aggregates Database_2016)

4.1.9. International Balance of Payment

Current Balance : 11,731.5 million U.S. dollars
Trade Balance : 27,724.2 million U.S. dollars
Foreign Currency Reserve : 114,630 million U.S. dollars
External Debts Balance : 744,700 (million Ringgits ※ Central Bank of Malaysia)

4.1.10. Investment

Amount of Direct Investment : 34,616 (million Ringgits)
Direct Investment from Japan : 2,276 (million Ringgits)

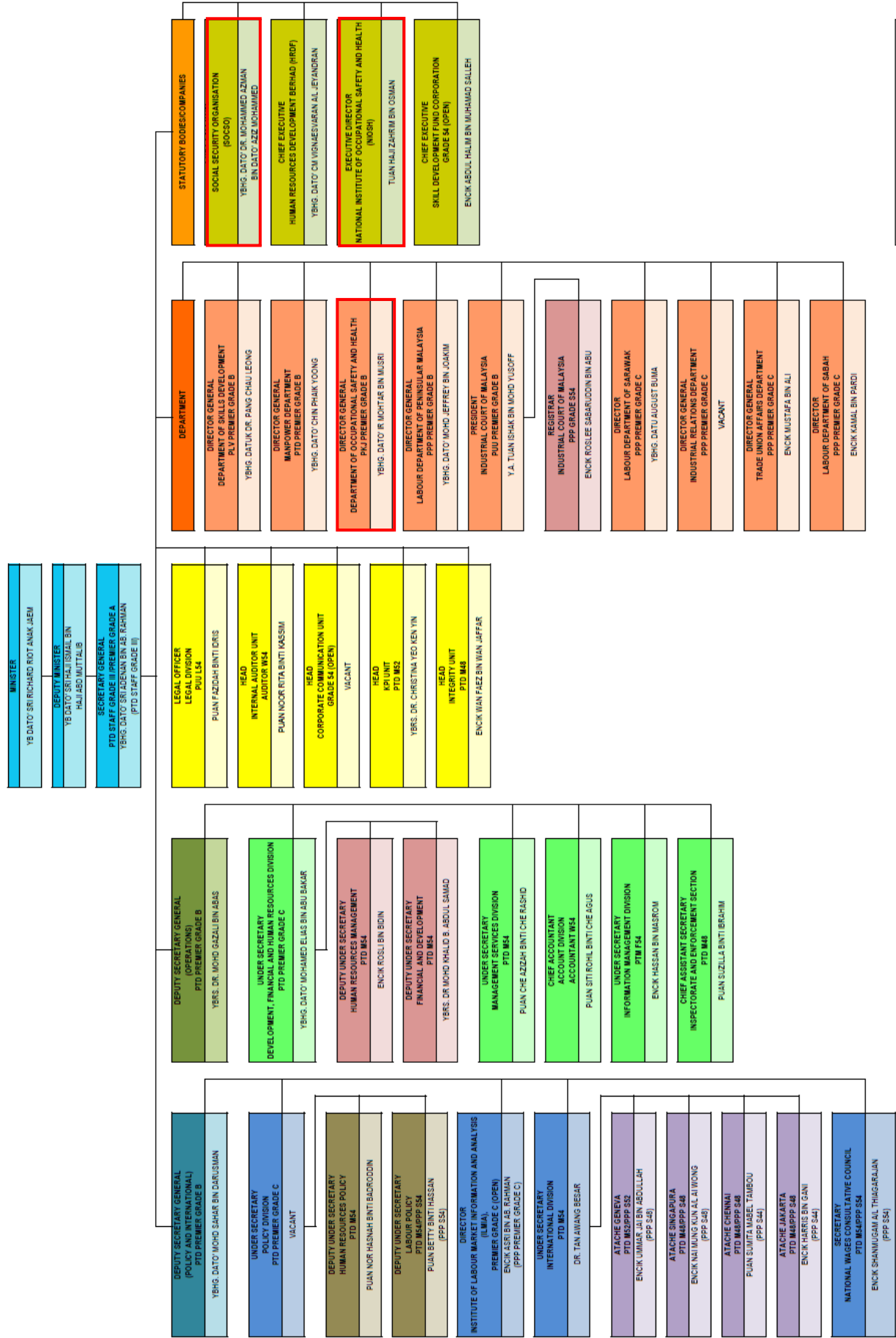
(Source: Balance of International Payments 2014 Central Bank of Malaysia)

4.2. Roles of Central Government on Occupational Safety and Health

(1) Ministry of Human Resources: MOHR

Ministry of Human Resources (MOHR) is in charge of Occupational Safety and Health (OSH) Administration in Malaysia, and the main public agencies regarding OSH belong to MOHR. Under MOHR, National Council for Occupational Safety and Health (**NCOSH**) has the highest authority responsible for formulating policies related to OSH and promoting safety and health culture. Next, the Department of Occupational Safety and Health (**DOSH**) is the main department that enforces all major laws on OSH. The Social Security Organization (**SOCSO**) is the main authority in delivering social compensation and welfare related to occupational injuries and fatality and the Malaysian National Institute of Occupational Safety and Health (**NIOSH**) is the main training, research and education for OSH competency. The following figure shows the organization chart of MOHR.

**ORGANISATION CHART
MINISTRY OF HUMAN RESOURCES**



UPDATE: 05.10.2018

Fig.4.2 Organization chart of MOHR (Source: MOHR website)

a) Major organizations on occupational safety and health administration

The following figure shows major organizations on OSH administration.

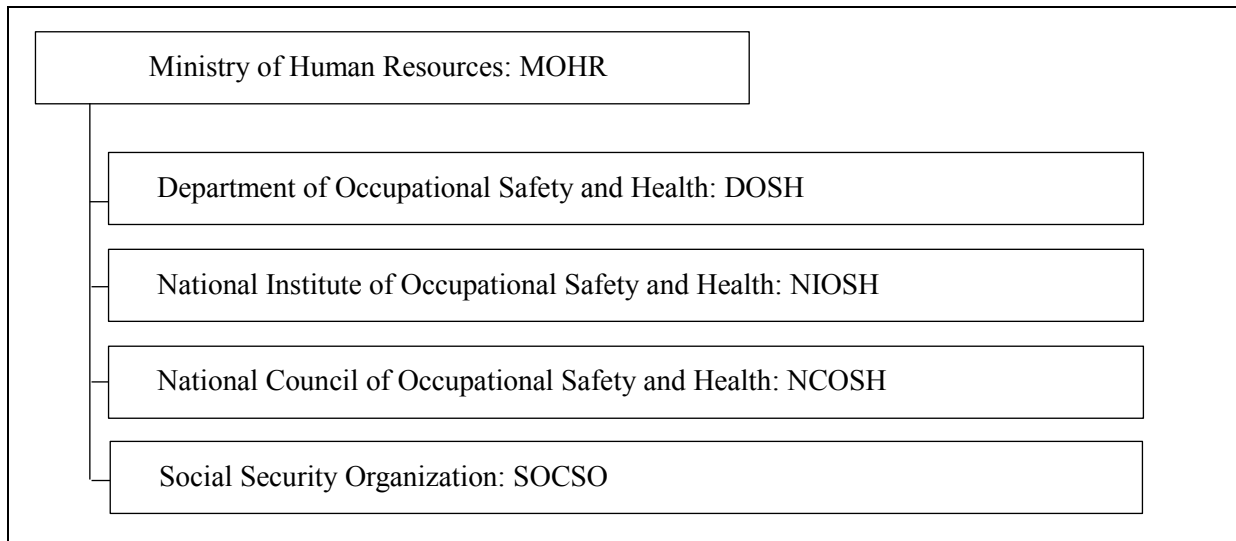


Fig.4.3 Major organizations on OSH administration under MOHR (by Study Team)

b) Roles and Responsibilities on OSH administration

The roles and responsibilities related to OSH administration are listed in the following table for the relationship with the organization shown in the above figure.

Table 4.2 Roles and Responsibilities of OSH in Malaysia

Roles and Responsibilities	Organization
OSH Policy Setting	MOHR, NCOSH
Standard Drafting Laws	DOSH
Enforcement	DOSH
Training	NIOSH
Certification	DOSH, NIOSH, CIDB
Information Dissemination	DOSH, SOCSO, NIOSH
Research and Consultation	NIOSH, Higher Education (Public, Private)
Compensation	SOCSO, Welfare Dept.

(Modified by Study Team based on document from NIOSH)

(2) Department of Occupational Safety and Health: DOSH

Department of Occupational Safety and Health (DOSH) is a department under the Ministry of Human Resources. This department is responsible for ensuring safety, health and welfare of people at work as well as protecting other people from safety and health hazards. As a government agency, the department is responsible for administration and enforcement of legislations related to OSH of the country, with a vision of becoming an organization which leads the nation in creating a safe and healthy work culture that contributes towards enhancing quality of working life.

Three important activities currently conducted by the department which involve headquarters and the

state offices are standard **setting, enforcement and promotion**. Activities at the headquarters are focused on standard setting, approval, accreditation and data analysis, whereas at the state offices, they conduct **enforcement of Acts and regulations, inspection, audit, investigation and legal proceedings**.

DOSH aims to disseminate a concept of "Preventive Culture" with the following five goals set in the master plan of 2015-2020.

- i. Government Leadership;
- ii. Strengthening of OSH Management at The Workplace;
- iii. OSH Sharing and Networks;
- iv. Mainstreaming Industrial Hygiene; and
- v. International OSH Strategic Alliance

The following figure shows the organization chart of DOSH.

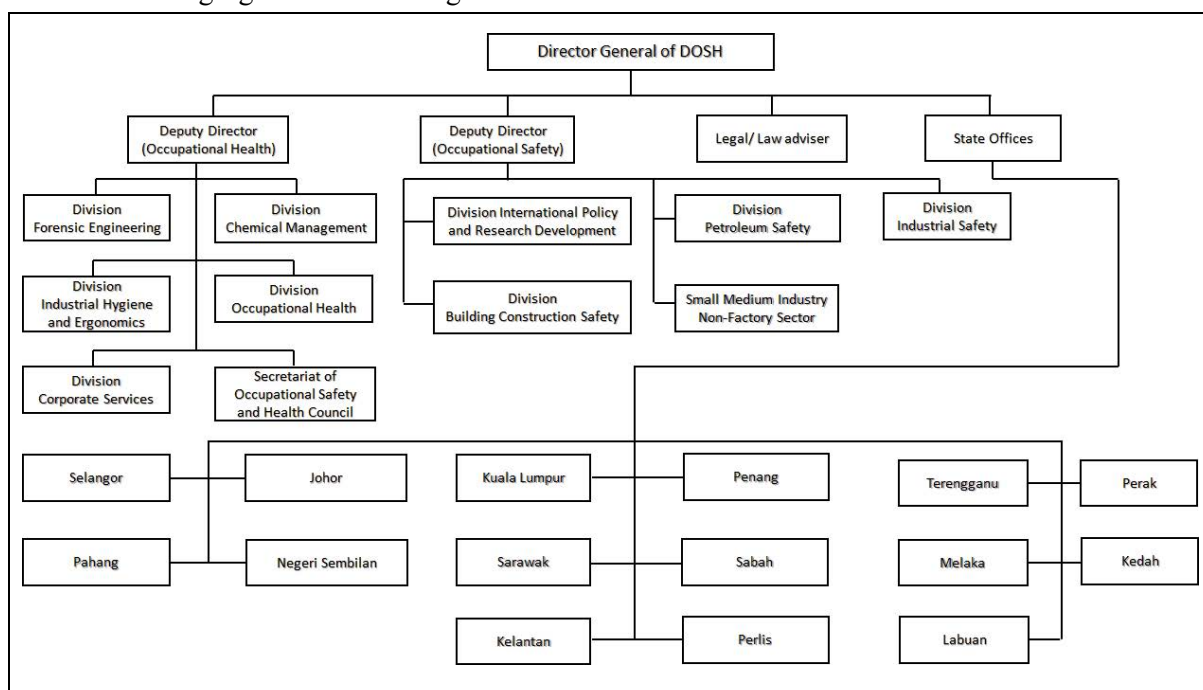


Fig.4.4 Organization chart of DOSH (Translated by Study Team)

(Source: <http://www.dosh.gov.my/index.php/en/about-us/hq-state-branch-office>)

a) State offices of DOSH

The state offices of DOSH are located in 15 cities in Malaysia.

Table 4.3 State offices of DOSH

1	WP Kuala Lumpur	6	Kedah	11	Terengganu
2	Selangor	7	Perak	12	Kelantan
3	Johor	8	Perlis	13	Sarawak
4	Melaka	9	Pulau Pinang	14	Sabah
5	Negeri Sembilan	10	Pahang	15	WP Labuan

The organization chart of state offices is shown in the following figure.

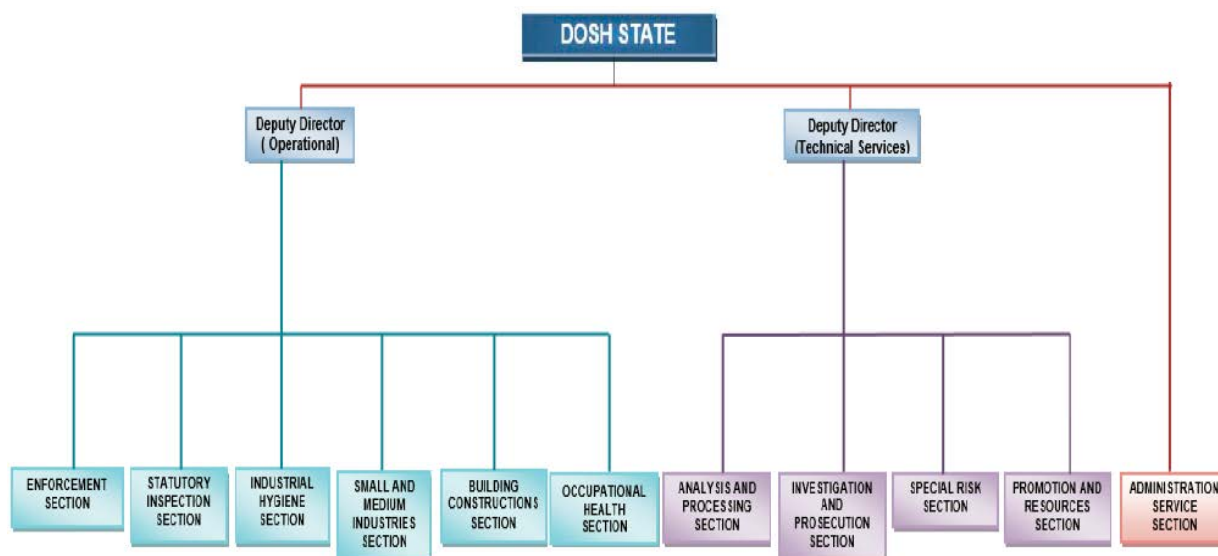


Fig.4.5 Organization chart of state office of DOSH

(Source: <http://www.dosh.gov.my/index.php/en/dosh-state-office>)

b) Annual budget

Whole annual budget of DOSH and the state offices for recent five years are shown below. (The figures of 2016 shows up to October, 2016)

Table 4.4 Whole annual budget of DOSH

No.	Year	OSH Annual Budget
1	2012	MYR 84,910,000.00
2	2013	MYR 92,319,533.00
3	2014	MYR 99,902,694.70
4	2015	MYR 111,053,441.83
5	2016 (As for October)	MYR 119,052,760.00

*The figures in the table above include the budget of the state office as shown in the table below (Source: DOSH)

Table 4.5 Annual budget of State office of DOSH

No.	Year	OSH Annual Budget	Allocation rate State office / whole
1	2012	MYR 54,110,000.00	63%
2	2013	MYR 67,125,800.00	72%
3	2014	MYR 73,253,950.70	73%
4	2015	MYR 86,390,858.83	78%
5	2016 (As for October)	MYR 94,450,300.00	79%

(Source: DOSH, allocation rate added by Study team)

Each State Office enforces the law on OSH based on the allocated budget. State office requests DOSH headquarters for additional budget quarterly in the event of a shortage in their budget. And the allocation budget to state offices for annual budget has increased in the past five years, and approximately 80% of the budget as of October 2016 is allocated to the state offices.

(3) National Institute of Occupational Safety and Health: NIOSH

NIOSH was established as a research facility relating to OSH under MOHR for the following objectives.

- To contribute to improve level of OSH by enriching the curriculum and program of training for workers, users, and persons who has directly or indirectly responsible for OSH.
- To support industrial, commercial and related industries to solve OSH issues.
- To support those who have responsible for OSH by providing the latest information on domestic and overseas in the field of OSH.
- To conduct short-term or long-term research on OSH that will bring benefits for country.
- To provide useful results of the research, and to become a leading center in field of safety and health.

NIOSH was established by proposal from ILO who has realized the necessity of a center of occupational safety and health in Malaysia when ILO officers had implemented the training program to the government officers in Malaysia before 1992.

NIOSH conducts (1) training and higher education related to OSH, (2) consultancy service, (3) information dissemination, (4) research & development, etc. And the main fields of the training program implemented by NIOSH are public / general OSH, capability certificate, training trainers, conference / seminar, issuance of safety passport, etc.

NIOSH has approximately 320 staffs throughout the country. Also there are ten regional offices, but many of its offices are composed of small scale. The offices which have facilities and equipment for training are only NIOSH headquarters and Southern regional office.

NIOSH is the main body of training institutions regarding OSH in Malaysia, and conducts training programs on OSH in all fields of industries in Malaysia. However, training in the construction field is also conducted by the Construction Industry Development Department (CIDB) described later.

a) State offices

NIOSH has ten state office in the country.

Table 4.6 State office of NIOSH

Southern Regional Office (Malacca)	Sarawak Regional Office (Kuching)	Sabah Regional Office (Kota Kinabalu)
Southern Regional Office (Johore)	Sarawak Regional Office (Bintulu)	Sabah Regional Office (Sandakan)
Northern Regional Office (Penang)	Miri Office	
East Coast Regional Office (Terengganu)	Sabah Regional Office (Labuan)	

Many of the equipment provided by JICA's technical cooperation project in 1999 are still in use. NIOSH requests equipment renewal budget to MOHR once every five years when equipment deteriorates or breakdown occurs.

NIOSH has been operating with financially independent without receiving budget from the government since NIOSH was established in 1993 (approved by the government in 1992), and the four main activities mentioned above are primary sources of revenue for them. NIOSH has been maintaining facilities and employing staff continually based on the earnings obtained. And we found that NIOSH has the facility size, various equipment types and training contents for fulfilling industry's needs.

NIOSH was operated as a training center from the beginning of establishment until around 1999, after which its technical services have been expanded.

The research & development services just started about five years ago. And the consultancy services which targeted at private enterprises in its activities constitute a part of profit and are one of the important initiative to improve NIOSH's technology. NIOSH has the authority to execute expansion and improvement of business contents at its own discretion, and has worked to maintain the management of NIOSH by improving profitability by measures such as business expansion.

b) Major Activities

The major activities of NIOSH shown in the following.

■ Training and higher education

NIOSH conducts training for issuing certificates that workers in industrial field called "safety passport" (Oil & Gas, Electricity, etc.) which are obliged to possess.

In Malaysia, all workers who work in industrial field and the construction field are obliged to attend training programs for beginners, thereby trying to improve basic workers. NIOSH also conducts training aimed at acquiring qualifications for OSH workers such as "Safety and Health Officer" and "Safety Site Supervisor" describe later.

NIOSH officers are responsible for approximately 40% of the training lecturers, and the remaining 60% are outsourced to external lecturers. For trainees who are increasing year by year, they are trying to cope with by increasing the ratio of external lecturers. And many external lecturers are asking skilled workers and experts. Also, NIOSH provides a training program for lecturers.

NIOSH is also conducting planning of training programs and has been working to improve training programs so that five new training programs can be added every year. They have been planning on the basis of industrial needs, and occasionally decide and discuss new training program at committee when they plan a new training program.

NIOSH has approximately 80 training courses currently, and they also offer training programs to support their understanding when new standards and guidelines are created. In addition, most of training courses in NIOSH are for acquiring the basic skills except for some courses. The procedures for issuing qualifications and licenses are not conducted by NIOSH.

■ Information dissemination

NIOSH conducts a project to organize conferences and seminars related to OSH. Approximately 1,500 people participated in the seminar held in August, 2016. Also, they have held a "Scientific Conference (SciCOSH 2016)" focused on research & development once every two years. And a JNIOH's researcher participated as a presenter to the conference held in November 2016.

Sixteen seminars were held throughout Malaysia by NIOSH as ever, and they have issued participation certificates to all participants who participated in the seminar. Some seminars had been sponsored by SOCSO. NIOSH actively contributed articles to introduce the latest efforts as a business introduction, and has submitted seven cases in domestic journals and five cases in international magazines in 2016.

(4) National Council of Occupational Safety and Health: NCOSH

In Malaysia, the National Council of Occupational Safety and Health (NCOSH) is the highest forum in MOHR in which the tripartite discussions are held on issues related to direction, national policy and implementation of OSH in the country. NCOSH was formed by MOHR in 1995 under Section 8 of the Occupational Safety and Health Act 1994 (Act 514), as a product of the Government's continual efforts to make safe and healthy work practices the Malaysian culture.

The mission of NCOSH is to raise awareness of Malaysians on OSH and create healthy and safe work culture among employers, employees and all parties.

NCOSH creates awareness on safety and health through promotion activities among Executive team, Labors and Local communities. NCOSH had been active in promoting awareness of OSH through various industrial and community. Every year in July it organizes a **National Occupational Safety and Health Week** in collaboration with MOHR, DOSH, NIOSH and other agencies as part of their campaigns in OSH promotion. NCOSH also organizes the **World Occupational Safety and Health Day** nationwide on 28th April annually and also celebrate **Occupational Safety and Health Week** on a nationwide scale. OSH Week is an annual event that is celebrated every year in the second week of July.

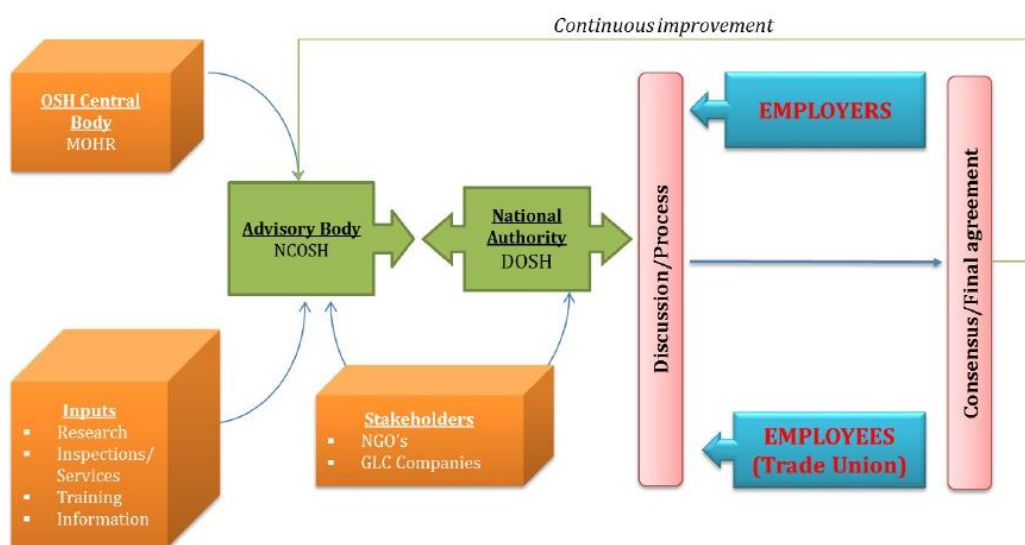


Fig.4.6 correlation diagram of DOSH and NCOSH

(5) Social Security Organization: SOCSO (a.k.a. PERKESO)

SOCSO was established under the law of Employees' Social Security Act 1969 as a subordinate organization of MOHR in 1971 and has branches in all provinces of Malaysia. The main activities of SOCSO are as follows.

- Promotion and monitoring of signing up for insurance for employers / employees who belong to a company form
- Protection of insured person through treatment cost benefits and compensation payment etc. based on the concept of social insurance when occupational accidents / diseases, accidents (both death and injury) occurs.
- Providing two types of benefit services: Employment Injury Scheme and an invalidity pension Scheme

SOCSO also provides a rehabilitation course etc. to insured workers for returning to work place, and the body has a rehabilitation center in Melaka.

SOCSO has held jurisdiction over the Employees' Social Security Act 1969 and Employees' Social Security Act (General Regulations) (1971). The social security system provided by SOCSO is targeted to Malaysians and currently foreign workers can not join the SOCSO's social security system so that foreign workers are necessary to comply with the Workmen's Compensation which is under the jurisdiction of Department of labor of MOHR.

This organization has its own data collection system, and various data such as accident data collected are used for policy making of MOHR, planning of OSH activities, and evaluation of its activities. In addition, as a social security organization, SOCSO is also involved in development of many staffs in other countries regarding this field, and has been implementing a training programs to Tanzania, Myanmar etc. until now.

4.3. Roles of Occupational Safety and Health Related Organizations

(1) Malaysian Society for Occupational Safety and Health: MSOSH

Malaysian Occupational Safety and Health Association (MSOSH) was established in 1971 as Malaysia Industrial Safety Association, was officially registered with the government in 1991.

Objectives of MSOSH activities is as follows.

- Securing safety and health for industrial workers and promoting actively measures to prevent occupational accidents.
- Encourage and promote cooperation system between business operators and workers with the objective of prevention and reduction of occupational accident and injuries.
- Promoting and implementing safety and health conferences and meetings actively to deepen understanding for importance of practicing safety and health activities appropriately.
- Bulletining articles and publishing newspapers to attract public attention to safety and health promoted by the association.
- Investigation activities on causes of occupational accidents and exploring countermeasures and

solutions for occupational accident prevention / reduction.

- Disclosure of occupational accident statistics and information owned by our association and general availability due to promote accident prevention and improve safety and health of workers.
- Implementing educational services and information services with basic objective of advising workers on the best ways to avoid disasters and making them understand that they always take practical and foresighting behavioral methods.
- Establishment and maintenance of information center for members.
- Maintaining close relationships with government agencies and carrying out missions regarding leading.

(2) Construction Industry Development Board: CIDB

CIDB was established in 1994 as a part (independent institution) of government agencies under the jurisdiction of Ministry of Public Works with the objective of improvement and promotion of quality and safety for the construction industry field under the law of Act 520: Construction Industry Development Board Act 1994. Major activities of CIDB are development, improvement and expansion of construction industry through securing on-site work, qualification of skills for workers and supervisors.

And, CIDB has been implementing registrations to CIDB (CIDB Act 1995. July) for local enterprises / foreign corporations before construction starts, labor training programs in construction field and the inspections at construction sites, etc. CIDB has about 900 staffs and 18 regional offices throughout Malaysia.

Approximately 16,000 construction companies including foreign-owned construction companies have been registered in CIDB, and registered companies are classified into seven grade of G1 to G7 according to CIDB's corporate rating system (highest grade is G7). Joint Venture is also obliged to register with CIDB, but details to register are based on contract conditions of the Ministry of Public Works.

(3) Malaysian Employer Federation: MEF

MEF as a main employer's organization in Malaysia is active in promotion of OSH activities, promoting good employment practices, harmonious industrial relations and offered services in Health, Safety and Environment to Malaysian industries. Its activities includes meeting with MOHR to discuss agendas concerning OSH, promoting Corporate Social Responsibility in Malaysia, participates in Workshop and offers services in Health, Safety and Environment to other industries.

(4) Malaysian Trade Union Congress: MTUC

MTUC is a national worker's organization that is actively involved in promotions and improvements of OSH in Malaysia. The activities organized include basic, intermediate and advanced training courses in OSH, conferences; workshops, websites and pamphlets, productions; and networking

4.4. Correlation Chart Regarding Related Group of OSH

The correlations as mentioned above related organizations regarding OSH are shown below.

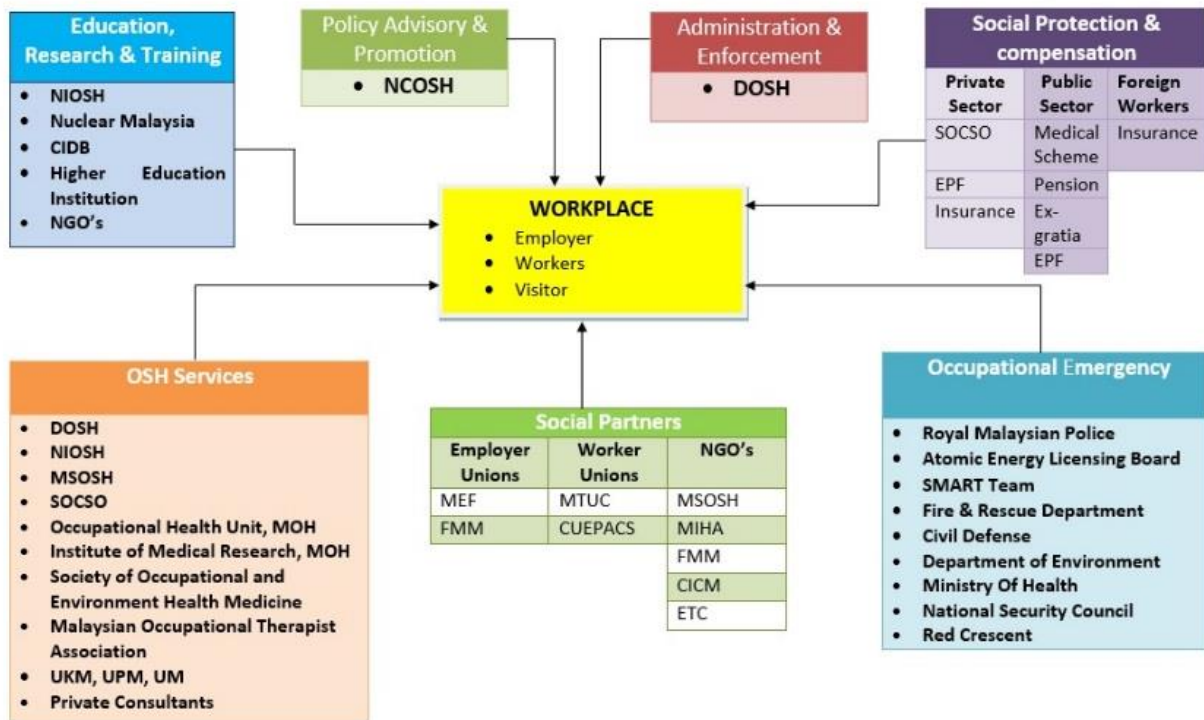


Fig.4.7 Correlation chart regarding related group of OSH

(Source: NCOSH, SOCSCO and NIOSH: <http://www.dosh.gov.my/index.php/en/about-ncosh/latarbelakang> and <http://www.mohr.gov.my/index.php/en/2015-03-30-03-31-48/2015-05-18-02-33-34>).

4.5 Statistics of Numbers of Recent Occupational Accidents, Types of Accidents and Diseases

(1) Number of accident reported by DOSH

Monthly aggregated number of occupational accidents are released by sector and region on DOSH's WEB site. According to the statistics of the past five years obtained from DOSH, the largest number of accidents in 2015 is 11,822 cases occurred in the factory sector, and accounting for approximately 30% of the total. And the largest number of death toll is 140 people, which are occurred in the construction sector.

The table below shows number of accidents by sector and number of occupational injuries casualties in the past five years. In the five years from 2011 to 2015, number of accidents and deaths have been remaining almost unchanged. The number of occupational accidents and deaths occurred in each sector are combined the data reported from the three organizations DOSH, Department of Labor and SOCSCO. This data managed by DOSH is treated as the official statistical data of labor site in Malaysia.

Table 4.7 Number of occupational accidents and deaths by sector in the past five years

SEKTOR	2011		2012		2013		2014		2015	
	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death
Agriculture, Forestry, Logging and Fishery	2,821	106	2,779	99	2,939	126	2,681	113	2,454	118
Mining and Quarrying	305	8	342	14	371	13	307	5	249	7
Manufacturing	13,727	150	12,917	97	12,588	113	12,148	103	11,822	124
Utility	554	7	512	5	691	2	598	8	569	5
Construction	3,429	109	3,669	73	4,071	84	4,399	89	3,905	140
Wholesale and Retail Trade	6,427	81	6,348	78	6,541	66	5,935	59	5,217	66
Hotel and Restaurant	1,150	13	1,148	7	1,237	13	1,130	10	975	7
Transport, Storage and Communication	2,407	96	2,388	50	2,635	39	2,597	49	2,234	54
Financial, Insurance, Real Estate and Business Services	3,277	36	3,476	38	3,718	40	3,680	24	3,340	39
Public Services and Statutory Bodies	7,496	149	7,961	121	8,994	122	8,673	113	7,988	108
JUMLAH	41,593	755	41,540	582	43,785	618	42,148	573	38,753	668

(Source: DOSH)

Table 4.8 Classification of symptoms due to occupational diseases in the past five years

JENIS PENYAKIT	2010	2011	2012	2013	2014	2015	2016 (Jan-Sept)
Occupational Lung Diseases (OLD)	43	65	111	90	133	91	87
Occupational Skin Diseases (OSD)	78	81	48	46	48	27	21
Occupational Noise Induced Hearing Loss (NIHL)	467	517	956	1,475	1,565	3,377	2,318
Occupational Muscular - Skeletal Disorders (OMD)	30	55	95	103	132	147	144
Occupational Poisoning	15	31	58	57	59	27	18
Disease cause by Physical Agent	1	0	1	6	5	0	2
Disease cause by Biological Agent	4	1	32	26	34	52	30
Occupational Cancer	0	3	1	0	1	2	0
Psychosocial Problem	1	1	0	0	1	1	0
Other Types of Occupational Diseases	5	10	12	4	2	6	6
Non Occupational Diseases	19	7	24	14	21	304	474

(Source: DOSH)

With respect to category of symptom, Number of symptoms of "Occupational Noise Induced Hearing Loss" is prominent large number, furthermore it is still increasing trend. The statistics in the table above cover all accidents that occurred in the field and include occupational accidents of over 2 million foreign workers, and also include illegal foreign workers.

(2) Number of accident reported by SOCSO

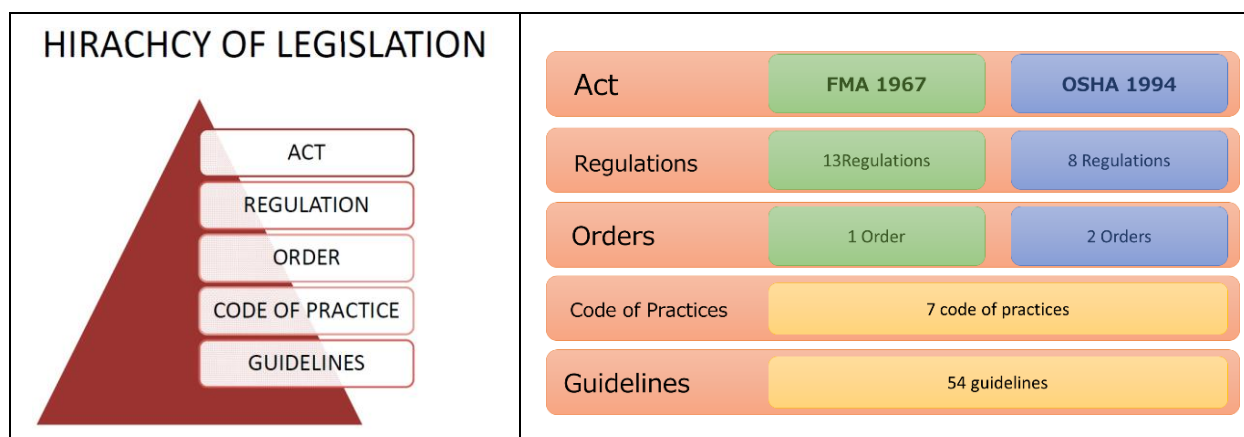
The table below shows the number of accidents reported by SOCSO. Number of occupational injuries in SOCSO covers commuting accidents, and it is difficult to compare simply with the statistical number by DOSH because of the difference of method of calculation.

The number of occupational accidents in 2015 is about 63,000, of which about 29,000 are due to accidents during commuting. In addition, while the number of accidents in the workplace is flat, the number of occupational diseases and commuting injuries tends to increase.

4.6. Occupational Safety and Health Related Legislation, Institution and National Plan

(1) Legal system and ratification of ILO Conventions in Malaysia

The following figure shows hierarchy of legislation and relevant standard number under DOSH.



(Modified by Study Team based on document from DOSH (Number of standards is targeted before 2013))

Malaysia had ratified the International Labor Organization (ILO) **Convention C187 (Promotional Framework for Occupational Safety and Health Convention 2006)** as the government's commitment in ensuring safety and health of employees in the country are protected, by meeting the safety standards set by the international body. Being the third country in Asia after Japan and South Korea to ratify the Convention, Malaysia agreed to be monitored by ILO in matters related to OSH, and reducing the number of occupational accidents is the main focus of the country.

Malaysia has currently ratified 18 conventions. A list of ratified conventions is shown below.

Fundamental

Convention	Date	Status	Note
C029 - Forced Labor Convention, 1930 (No. 29)	11 Nov 1957	In Force	
C098 - Right to Organize and Collective Bargaining Convention, 1949 (No. 98)	05 Jun 1961	In Force	
C100 - Equal Remuneration Convention, 1951 (No. 100)	09 Sep 1997	In Force	
C105 - Abolition of Forced Labor Convention, 1957 (No. 105)	13 Oct 1958	Not in force	Denounced on 10 Jan 1990
C138 - Minimum Age Convention, 1973 (No. 138) Minimum age specified: 15 years	09 Sep 1997	In Force	
C182 - Worst Forms of Child Labor Convention, 1999 (No. 182)	10 Nov 2000	In Force	Note

Governance (Priority)

Convention	Date	Status	Note
C081 - Labor Inspection Convention, 1947 (No. 81)	01 Jul 1963	In Force	
C144 - Tripartite Consultation (International Labor Standards) Convention, 1976 (No. 144)	14 Jun 2002	In Force	

Technical

Convention	Date	Status	Note
C050 - Recruiting of Indigenous Workers Convention, 1936 (No. 50)	11 Nov 1957	In Force	
C064 - Contracts of Employment (Indigenous Workers)	11 Nov 1957	In Force	

Convention, 1939 (No. 64)			
C065 - Penal Sanctions (Indigenous Workers) Convention, 1939 (No. 65)	11 Nov 1957	In Force	
C088 - Employment Service Convention, 1948 (No. 88)	06 Jun 1974	In Force	
C095 - Protection of Wages Convention, 1949 (No. 95)	17 Nov 1961	In Force	
C119 - Guarding of Machinery Convention, 1963 (No. 119)	06 Jun 1974	In Force	
C123 - Minimum Age (Underground Work) Convention, 1965 (No. 123) Minimum age specified: 16 years	06 Jun 1974	In Force	
C131 - Minimum Wage Fixing Convention, 1970 (No. 131)	07 Jun 2016	Not in force	The Convention will enter into force for Malaysia on 07 Jun 2017.
MLC, 2006 - Maritime Labor Convention, 2006 (MLC, 2006) In accordance with Standard A4.5 (2) and (10), the Government has specified the following branches of social security: medical care; sickness benefit and employment injury benefit.	20 Aug 2013	In Force	
Amendments of 2014 to the MLC, 2006	18 Jul 2014	Not in force	Awaiting declaration of acceptance
Amendments of 2016 to the MLC, 2006	08 Jul 2016	Not in force	
C187 - Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187)	07 Jun 2012	In Force	

(Source: ILO website)

(Source: http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::P11200_COUNTRY_ID:102960)

(2) Legislations for occupational safety and health

a) Factories and Machinery Act 1967 (FMA1967)

FMA 1967 prescribes management and machine registration, inspection and matters related to safety concerning safety, health, welfare and people working in factory.

(Source: <http://www.dosh.gov.my/index.php/en/legislation/acts>)

The following Order / Regulations under the Act have been promulgated. The Order/Regulations marked by asterisk (*) has been promulgated after 2014. The Regulations and Orders made under the OSHA 1994 are the:

[Order]

- ① *Factories And Machinery (Exemption of Certificate of Fitness For Hoisting Machine) Order 2015
- ② Factories and Machinery (Exemption to Petroleum Nasional Berhad) Order 2013.

[Regulations]

- ① *Factories and Machinery (Special Scheme of Inspection) (Risk-Based Inspection) Regulations 2014
- ② Factories and Machinery (Steam Boiler and Unfired Pressure Vessel (Amendment) Regulations 2005.

- ③ Factories and Machinery (Notification, Certificate of Fitness And Inspection) (Amendment) Regulations 2004.
- ④ Factories and Machinery (Noise Exposure) Regulations 1989.
- ⑤ Factories and Machinery (Mineral Dust) Regulations 1989.
- ⑥ Factories and Machinery (Asbestos Process) Regulations 1986.
- ⑦ Factories and Machinery (Building Operations & Works of Engineering Construction (Safety) Regulations 1986.
- ⑧ Factories and Machinery (Lead) Regulations 1984.
- ⑨ Factories and Machinery (Electric Passengers and Good Lifts) Regulations 1970.
- ⑩ Factories and Machinery (Fencing of Machinery and Safety) Regulations 1970.
- ⑪ Factories and Machinery (Person in Charge) Regulations 1970.
- ⑫ Factories and Machinery (Safety, Health and Welfare) Regulations 1970.
- ⑬ Factories and Machinery (Administration) Regulations 1970.
- ⑭ Factories and Machinery (Certificate of Competency - Examinations) Regulations 1970.

(Source: <http://www.dosh.gov.my/index.php/en/legislation/regulations-1> and <http://www.dosh.gov.my/index.php/en/legislation/order>)

b) Occupational Safety and Health Act 1994 (OSHA 1994)

OSHA 1994 provides a legal framework to promote and encourage high standards of OSH at workplace. The Act defines that employer means person who provides workplace environments which may cause hazardous factors to employees in workplace, and employee means person who must work under these hazardous factors. Also the act defines initiatives for self-regulation to share responsibility for OSH in workplace between employers and workers.

(Source: <http://www.dosh.gov.my/index.php/en/legislation/acts>)

The following Order / Regulations under the Act have been promulgated.

[Order]

- ① Occupational Safety and Health (Prohibition of Use of Substance) Orders 1999
- ② Occupational Safety and Health (Safety and Health Officer) Orders 1997.

[Regulations]

- ① Occupational Safety and Health (Classification, Labeling of Safety Data Sheet of Hazardous Chemicals) Regulations 2013.
- ② Occupational Safety and Health (Notification of Accident, Dangerous Occurrence, Occupational Poisoning and Occupational Diseases) Regulations 2004.
- ③ Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000.
- ④ Occupational Safety and Health (Prohibition of Use of Substance) Regulations 1999.
- ⑤ Occupational Safety and Health (Safety and Health Officer) Regulations 1997.

- ⑥ Occupational Safety and Health (Control of Industrial Major Accident Hazards) Regulations 1996.
- ⑦ Occupational Safety and Health (Safety and Health Committee) Regulations 1996.
- ⑧ Occupational Safety and Health (Employers' Safety and Health General Policy Statements (Exception) Regulations 1995.

Source: <http://www.dosh.gov.my/index.php/en/legislation/regulations-1>, and
<http://www.dosh.gov.my/index.php/en/legislation/order>

c) Code of Practices and Guidelines

Code of Practices are prescribed for four fields (Chemical Management, Industrial Hygiene, Occupational Health, Transportation), and guidelines for ten fields (Agriculture, Forestry & Fishing, Building Construction & Engineering Work, Chemical, Competency, Ergonomic, General, Hirarc (*), Industrial Hygiene, Industrial Safety, Occupational Health) are in place. The guidelines regarding agriculture, forestry and fisheries industry and the construction industry among the guidelines are shown below as an example.

The guidelines concerning Agriculture, Forestry & Fishing, and Building Construction & Engineering Work among the guidelines are shown below as an example.

* Hirarc : Hazard Identification, Risk Assessment and Risk Control

Source: <http://www.dosh.gov.my/index.php/en/legislation/codes-of-practice>, and
<http://www.dosh.gov.my/index.php/en/legislation/guidelines>

■ The guidelines concerning the Agriculture, Forestry & Fishing

01. Guidelines on Occupational Safety and Health in Logging Operations, 2004
02. Guidelines on Occupational Safety and Health in Fishing and Aquaculture Operations, 2003
03. Guidelines on Occupational Safety and Health in Agriculture, 2002
04. Guidelines on Occupational Safety and Health in Agriculture, 2002 (Mandarin Version)
05. Guidelines on Occupational Safety and Health in Agriculture, 2002 (Tamil Version)

■ The guidelines concerning Building Construction & Engineering Work

01. Guidelines for Approval of Design Scaffolding 2016
02. Calculation Loading of Scaffolding 2016
03. Guidelines for Public Safety and Health at Construction Sites, 2007
04. Guidelines for the Prevention of Falls at Workplaces, 2007
05. Guidelines on Trenching for Construction Safety, 2000
06. Guidelines on Occupational Safety and Health in Tunnel Construction,

In the case of contravenes the provisions and not obeying improvement orders or suspension orders, there are punishments by regulation, on conviction, be liable to a fine not exceeding fifty thousand ringgit or to imprisonment for a term not exceeding two years or to both. DOSH has evaluated the

punishment prescribed in current OSHA 1994 is a light sentence. Therefore DOSH has been reviewing to revise OSHA 1994, it is possible that a fine will be increased in the new law after deliberation.

4.7. Position of Occupational Safety and Health Administration on National Policy

First Master Plan was formulated as a basic plan concerning OSH in 2006, and newest Master Plan (2016-2020 Occupational Safety and Health Master Plan) has been conducting as a new five-year basic plan since 2016. The outline of the master plan is shown below.

■ Occupational Safety and Health Master Plan 2016 - 2020 (OSH-MP 2020)

The 2016-2020 Occupational Safety and Health Master Plan is a strategy and programs formulated to further boost national OSH to greater effort to protect the nation's human resources are an important asset to success of national development programs in order to realize the goals of Vision 2020. This master plan is a continuation of the previous OSH strategic plan and master plan started in 2006 which were premised on a Safe and Healthy Work Culture among employers and employees. Safe and Healthy Work Culture is a cornerstone in making workplaces safer and healthier in Malaysia through strategic programs to prevent accidents and occupational diseases.

The main strategy of the **OSH-MP 2020** is the inculcation of a **Preventive Culture** at workplace. This approach will follow through with the implementation and inculcation of **the Principle of Responsibility** and **Self-regulation** carried out in the previous two plans in order to bolster nurturing of a Safe and Healthy Work Culture among employers and workers.

To realize this goal, the OSH-MP 2020 employs five main strategies founded on endeavor to increase stakeholder awareness, responsibility and commitment to OSH. All quarters must move together to fulfil their respective responsibilities and roles to create a safe and healthy workplace through the inculcation of the values of the Preventive Culture. These 5 strategies are:

- i. Government Leadership;**
- ii. Strengthening of OSH Management at The Workplace;**
- iii. OSH Sharing and Networks;**
- iv. Mainstreaming Industrial Hygiene; and**
- v. International OSH Strategic Alliance**

These 5 strategies of OSH-MP 2020 are in turn reinforced by various Programs and activities focused on nurturing the Preventive Culture among employers and workers. To ensure its success, aside from the commitment of employers and workers, OSH-MP 2020 outlines duties and responsibilities of all stakeholders which are Government, associations, competent persons and relevant parties with influence over employers and workers.



Fig.4.8 Strategies of the OSH-MP2020

(Source: <http://www.dosh.gov.my/index.php/en/about-us/dosh-profile>)

4.8. OSH Related Activities by Private Enterprises and NGOs

OSH activities are also carried out by NGOs such as the Malaysian Society for Occupational Safety and Health (MSOSH), Federation of Malaysian Manufacturers (FMM), and Malayan Agricultural Producers Association (MAPA), The Academy of Occupational and Environmental medicine (AOEM) and Malaysian Industrial Hygiene Association (MIHA). These NGOs are actively promoting and improving OSH in Malaysia through training courses, seminars and workshops.

And private companies, as a social partner, support to inculcate OSH culture through ongoing education and promotion activities regarding OSH.

4.9. OSH Related Activities by the Labor Union and/or Employer's Association

Approach of each group of employers and workers' organizations is shown below. Malaysia has not ratified convention No.87 of the ILO "Freedom of Association and Protection of the Right to Organize Convention" at present.

■ Malaysian Employer Federation (MEF)

MEF as a main employer's organization in Malaysia is active in promotions of OSH activities, promoting good employment practices, harmonious industrial relations and offered services in Health, Safety and Environment to Malaysian industries. Its activities includes meeting with MOHR to discuss agendas concerning OSH, promoting Corporate Social Responsibility in Malaysia, participates in Workshop and offers services in Health, Safety and Environment to other industries.

(Source: <http://www.mef.org.my/Home.aspx> , <http://mbam.org.my/>)

■ Malaysian Trade Union Congress (MTUC)

MTUC is a national worker's organization that is actively involved in promotions and improvement of OSH in Malaysia. Its activities organized include basic, intermediate and advanced training courses in OSH, conferences; workshops, websites and pamphlets, productions; and networking

5. Present Situation of Occupational Safety and Health Administration and its Challenges in Malaysia

5.1. Site Inspection System, Reporting System

(1) Site Inspection System

DOSH has 1,085 OSH Inspectors across the country, they conduct to inspect work sites regarding OSH. Approximately 80% of them are assigned to state offices.

All DOSH officers acquire technical skills through inspection work at workplace. OSH inspectors of DOSH don't have to obtain official qualification by having an engineering background of science and engineering with degrees in civil, mechanical, chemical, electrical, electronic etc. Whereas OSH inspections which specialize in safety have been implemented sufficient, those which specialize in health fields are not sufficient in Malaysia.

And DOSH has certified a MS ISO 9001: 2008, MS 1722: 2011 & OHSAS 18001:2007. Therefore, all work procedures including inspection procedure at sites are stipulated in DOSH quality, OSH Management System. For construction sites, DOSH have procedures for OSH inspection in construction as well as checklists for DOSH officer reference. DOSH is in charge of inspection of 10 sectors (*) under the OSHA1994.

Inspection results of sites can be shared promptly through the inspection management system (SMBF) which is able to report the results to DOSH headquarters by inputting the checklist at state offices.

An example of an inspection checklist at the construction site is shown below.

[Construction Safety Inspection Guidance]

1. Hazard Inspection Guidance of Working at height
2. Hazard Inspection Guidance of Concrete Works
3. Hazard Inspection Guidance of Prefabricated Scaffold
4. Hazard Inspection Guidance of Excavation Works
5. Hazard Inspection Guidance of Lifting Operation

DOSH has been engaged in pointing out and improving all unsafe behavior at workplace by conducting inspections using this system, and fairly inculcating rules and awareness regarding OSH for foreign workers.

※ 10 sectors (1) Manufacturing, (2) Mining and Quarrying, (3) Construction, (4) Agriculture, Forestry and Fishing, (5) Utilities: (a) Electricity; (b) Gas; (c) Water; and (d) Sanitary Services, (6) Transport, Storage and Communication, (7) Wholesale and Retail Trades, (8) Hotels and Restaurants, (9) Finance, Insurance, Real Estate and Business Services, (10) Public Services and Statutory Authorities

(2) Reporting System

Any reference to an accident, dangerous occurrence, occupational poisoning or occupational disease

at workplaces must be reported to DOSH according to **the Occupational Safety and Health (Notification of Accident, Dangerous Occurrence, Occupational Poisoning and Occupational Disease) Regulations 2004**. (NADOPOD Regulations 2004)

Whenever any accident arising out of or in connection with work which caused any person either **death; serious bodily injury**, as specified in First Schedule (NADOPOD Regulations 2004), which prevents the person from following his normal occupation for more than 4 calendar days. Dangerous occurrence, as specified in Second Schedule (NADOPOD Regulations 2004)

Any accident arising out of or in connection with work which causes **bodily injury** to any person which prevents the person from following his normal occupation for more than four calendar days.

Where a person at work suffers or likely to suffer from one of the **occupational poisonings** or **occupational diseases** specified in column 1 of Third Schedule (NADOPOD Regulations 2004).

However, above provisions excludes self-employment.

(Source:

<http://www.dosh.gov.my/index.php/en/legislation/regulations-1/osha-1994-act-154/521-02-occupational-safety-and-health-notification-of-accident-dangerous-occurrence-occupational-poisoning-and-occupational-disease-regulations-2004/file>)

Any persons who contravenes any provision of these regulations, commits an offence and shall, on conviction, be liable to a fine not exceeding ten thousand ringgit or to imprisonment for a term not exceeding one year or to both.

5.2. Collection and Analysis of Occupational Accident Statistical Data

A basic system for collecting data for worker's accidents has been already operated in Malaysia. However, currently, three types of statistical data collecting by DOSH, SOCSO, and Dept. of Labor are integrated and operated, therefore the data is not sufficient the official statistical data of government for cross-cutting analysis and planning to countermeasures. Decreasing in occupational accident accidents has been stopped at present, and new measures that are different from the past are being required in Malaysia.

Malaysia has been faced new challenges such as accidents in small and medium-sized enterprises, commuting accidents, non-communicable diseases such as NCDs (cardiovascular disease, cancer, chronic lung disease, diabetes etc.) in recent years. Hence, it is critical to improve the data collection system and analysis technique in a extensive range and detail in order to consider new concrete measures to decrease occupational accidents and occupational diseases.

Use of asbestos are still permitted in Malaysia at present. And DOSH considers that measures for regulating the use of asbestos are necessary in the future. However the data on occupational diseases caused by asbestos have not been collected, and it is difficult to prove adverse effects of asbestos on human body to the industry.

5.3. Education on Occupational Safety and Health

(1) Overview

Education is commonly looked upon in form of formal education which is defined as process of training and developing people in knowledge, skills, mind, and character in structured and certified programs in Malaysia. For OSH discipline, the education discussed here is in the form of tertiary education usually offered by institute of higher learning or universities.

OSH education is essential part of OSH to ensure success of any OSH program at workplace. One of conditions for the success in the implementation of OSHA 1994 is that of training and education in OSH which involve for both managements and workers as well. Common agencies involved in the education, trainings and research are National Institute for Occupational Safety and Health (NIOSH) and higher educational institutes. NIOSH is responsible to provide training programs, consultation services, information dissemination and conduct research in the field of OSH. On the other hand, CIDB deals with training in the field of construction. Several categories of NIOSH training programs include public/general OSH, certificate/competency, train the trainer, conference and seminar and safety passport. Higher educational institutes including local and private universities also participate in research related to OSH area.

OSH related education can be divided into 3 types:

- 1) Occupational Medicine,
- 2) Occupational Health Nurse; and
- 3) Health and Safety Executives or Engineers

(2) Education curriculum

Education curriculums of higher education institutions and private universities regarding OSH provide the Diploma as for a certificates. At the postgraduate level, all these programs are offered under the Faculties of Medicine, Health Science or Allied Health in these public universities. A figure below shows summary of OSH education programs from public and private institutes of higher learning.

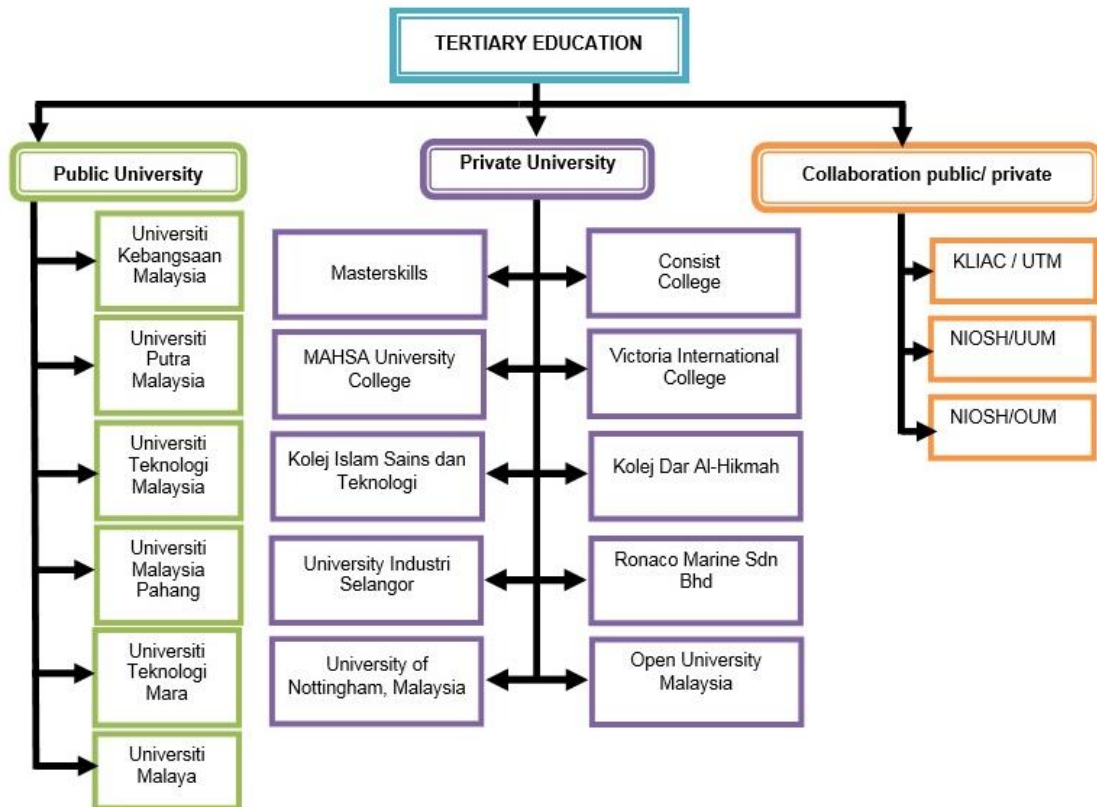


Fig.5.1 Educational institution related to occupational safety and health
(Source: DOSH)

The education curriculums in these institutes or universities have a fixed curriculum or modules which created to acquire knowledge, professionalism and skill towards a diploma or degree at the undergraduate and graduate levels. Participants finished the curriculums will get the certification from their respective universities/ institutes. The certification is one of the qualification criteria in order for registration with DOSH as an OSH Competent Person such as Safety and Health Officer (SHO), Occupational Health Doctors (OHD), Major Hazard Competent Person etc.

Educators of safety and health are not obliged to hold licenses and qualifications, but educators and educational institutions in OSH field are required to register with DOSH.

An example of the curriculum at the university is shown in the table below.

Example of curriculum for Masters in Industrial Safety Management at Universiti Kebangsaan Malaysia

COMPONENT	Semester 1		Semester 2		Semester 3	
	Course Name	Credit Hour	Course Name	Credit Hour	Course Name	Credit Hour
Core Courses Programs	1. Occupational Safety Management	3	1. Advanced Industrial and Organizational Psychology	3	1. Environment and Biology Safety Management	3
	2. Prevention of Fire, Explosion and Release of Toxic Substances	3	2. Occupational Health Management	3	2. Electrical and Mechanical Safety Management	3
	3. Hazard Identification and Risk Assessment	3	3. Ergonomics	3	3. Research Project 2	6
	4. Industry and Environment Law	3	4. Chemical and Radiation Safety Management	3		
			5. Research Project 1	4		
Total Credit Hour		12		16		12

(Source: DOSH)

(3) Occupational safety and health education conducted by NIOSH

Training programs operated by NIOSH have been increased and the number of students has also increased year by year (approximately 130,000 students per year, approximately 5,700 courses), NIOSH has been leading training projects of Malaysia.

NIOSH staffs seem to have cultivated adequate teaching skills and experiences for students through conducting the number of programs and teaching students, but most of training programs targets basic skills and matters at present, therefore, training of experts who are able to carry out advanced educational guidance is one of a key issue in Malaysia. NIOSH has been working on improvement, such as starting consultancy services and research & development projects, etc. to improve technical capabilities of staffs, but the level of technology is still lower compared with Japan and other developed countries.

NIOSH conducts training programs of Safety and Health Officer (22 days) and Site Safety Supervisor (10 days) required by the provisions of the law in construction field. In addition to NIOSH and CIDB, there are many private training institutions that DOSH has certified.

And trainings for acquisition of skill certificates such as crane operation, scaffolding etc. are not implemented by NIOSH, and private training institutions have been conducting the training programs. The contents of new training programs established by private training institutions need to be evaluated in advance by NIOSH, and DOSH certifies them based on the evaluation results.

(4) Occupational safety and health education in construction field

CIDB is in charge of training in the construction field, CIDB also has a training organization (Academy for Construction) as NIOSH has. CIDB carries out basic skill trainings as well as academic trainings in construction field.

The Safety and Health Officer (SHO) is a person who is in charge of OSH at construction site, and SHO is stated as a requisite qualification in requirements of DOSH. And it is obligated to staff SHO at construction sites which meet definition of the Occupational Safety and Health (Safety and Health Officer) Order 1997. The construction sites are not limited to building construction field.

The Safety and Health Officer has various cases such as when it is hired by the government or when it is an employee of a private construction company. The CIDB, which is primarily in charge of training projects in construction field, also conducts training for SHO, and students who have taken CIDB training programs receive certificates from DOSH and register as SHO. CIDB also conducts training programs of Safety Site Supervisor (SSS), and crane operator, welding and footholds.

5.4. License/Certification and Inspection System

(1) License/Certification System

There are 12 types of qualifications targeted at OSH workers as shown below. Also, a list of qualified holders is published on the DOSH website.

- Assessor
- Authorized Gas Tester /Entry Supervisor
- Hygiene Technician I
- Hygiene Technician II
- Indoor Air Quality Assessor
- Lift Competent Person
- Major Hazard Competent Person
- Noise Competent Person
- Responsible Person
- Occupational Health Doctor
- Safety and Health Officer
- Safety Site Supervisor
- Steam/Internal Combustion Engine Engineer

(Reference: <http://www.dosh.gov.my/index.php/en/competency/competent-person-01/competent-person-info>)

Outline of "Safety and Health Officer" and "Safety Site Supervisor" which are qualifications on safety at work site is shown below.

■ Safety and Health Officer (SHO)

(Source: <http://www.dosh.gov.my/index.php/en/oyk-sho>)

a) Description/Responsibilities

Under section 29 (3) of the OSHA1994, the safety and health officer shall be employed exclusively for the purpose to ensure due observance at places of work. While under section 29 (4) of the OSHA1994, the safety and health officer shall possess such qualifications or have received training prescribed by the Minister from time to time by notification in the Gazette. The Occupational Safety and Health (Safety and Health Officer) Regulations 1997 came into force on August 22, 1997. This regulations intended to ensure that the employers under the class or type of industry specified in the Occupational Safety and Health (Safety and Health Officer) Regulations 1997 employ a safety and health officer for the purpose of managing matters relating to workplace safety and health.

Safety and Health Officer's duties are outlined under Regulation 18 of the Occupational Safety and Health (Safety and Health Officer) Regulations 1997. Under Regulation 4 of the Occupational Safety and Health (Safety and Health Officer) Regulations 1997, no person shall act as a safety and health officer unless he is registered with the Director General. The Director General in this context is referring to the Director General of DOSH.

b) Legislation

Regulations: Regulation 7, of Regulation of Occupational Safety and Health (Safety and Health Officer) 1997

Guidelines: Guidelines for Safety and Health Officer

c) Qualifications

No one may act as a Safety and Health Officer unless he is registered with the Department of Occupational Safety and Health (r.4, SHO Regulations 1997). To qualify the applicant must meet the following requirements (r.6, SHOR1997):

- Holds a Diploma or Degree in Occupational Safety and Health recognized by the DOSH;
- Completed DOSH recognized training in OSH and passed the necessary exams, with at least 3 years' experience;
- Have had at least 10 years' experience in OSH; or
- Holds other qualifications or training as prescribed by DOSH.

d) Major roles

Safety and Health Officers, irrespective of their occupational titles, are required to do a set of things. While their roles may vary according to company, their basic responsibilities can be found in the SHO Regulation 1997.

Regulation 18, SHO Regulations 1997 outlines what a SHO must do:

- Advise the employer on measures to be taken in interest of OSH in the workplace;
- Inspect the workplace for harmful hazards;
- Conduct investigation on any incidents, accidents, occupational diseases or poisonings;
- Organize and implement OSH Programs at the workplace;
- Act as Secretary of the Safety and Health Committee;
- Collect, analyses and maintain OSH records;
- Assist any officer discharging his duties under OSHA 1997 and the regulations;
- Execute other instructions from the employer pertaining to OSH at the workplace.

Regulation 19, SHO Regulations 1997 imposes the duty to report on the SHOs. By the 10th day of every month, the SHO must submit a report to the employer. Among others, the SHO must report:

e) Validity

A registration for DOSH is valid for 3 years.

A registration of a SHO can be cancelled by DOSH (r. 13, SHOR1997). And DOSH has the right to refuse registration on several grounds (r.9, SHOR1997).

f) Definition requiring placement of persons in charge of safety and health

Requirements for placement of safety and health officer in construction work and business establishments are specified in Occupational Safety and Health (Safety and Health Officer) Order 1997. The employer of the following class or description of industries shall employ a safety and

health officer:

- (a) any building operation where the total contract price of the project exceeds twenty million ringgit;
- (b) any work of engineering construction where the total contract price of the project exceeds twenty million ringgit;
- (c) any ship building employing at peak of the work more than a hundred employees;
- (d) any gas processing activity or petrochemical industries employing more than a hundred employees;
- (e) any chemical or allied industry employing more than a hundred employees
- (f) any boiler or pressure vessel manufacturing activity employing more than a hundred employees;
- (g) any metal industry where there is canning or stamping or blanking or shearing or bending operations and employing more than a hundred employees;
- (h) any wood working industry where there is cutting or sawing or planning or moulding or sanding or peeling or any combination of the above, and employing more than a hundred employees;
- (i) any cement manufacturing activity employing more than a hundred employees; and
- (j) any other manufacturing activity other than the manufacturing activity specified in subparagraphs (f) to (i), employing more than five hundred employees.

A Safety and Health Officer of prime contracted construction company has a obligation to monitor OSH of all sub construction companies in accordance with contract of the primarily constructed construction company and has right to instruct to all related constructions under the contract. And they are also obliged to establish a safety and health committee.

■ Safety Site Supervisor (SSS)

(Source: <http://www.dosh.gov.my/index.php/en/oyk-sss>)

a) Description/Responsibilities

Under Regulation 25 (1), of the Factories and Machinery (Building Operations and Works of Engineering Construction) (Safety) Regulations 1986 [BOWEC], the main contractor shall appoint a site safety supervisor for the safety supervision on construction activities within the site. Among the duties of site safety supervisor is :-

- a) Inspect and rectifying any unsafe conditions at the construction site;
- b) Correcting any unsafe practices;
- c) Checking of sub-contractors' work to ensure compliance with the Act and the Regulations made thereunder are complied with, and
- d) Liase with contractor's safety supervisors appointed under Regulation 26 with respect to safety of work undertaken by sub-contractors.

Regulation 25 (2) of Regulation BOWEC has stipulate that site safety supervisor must be a person who is competent to perform the duties specified in sub-regulation (3) and (4), and have qualifications approved by the Chief Inspector and working experience of at least for two years as a

construction site foreman. Chief Inspector is Director General of DOSH.

With regard to competency of a site safety supervisor, DOSH had decided that site safety supervisor must be a person who has successfully completed a site safety supervisor course carried out by the instructor registered with DOSH, and passed the examination conducted by NIOSH or institution accredited by DOSH.

b) Legislation

Regulations: Regulation 25, of Regulation of the Factories and Machinery (Building Operations and Works of Engineering Construction) (Safety)

c) Qualifications

DOSH have decided that site safety supervisor must be a person who has successfully completed a site safety supervisor course at DOSH accredited training center, and passed the examination conducted by NIOSH or other institutions accredited by DOSH. Also, the following requirements are listed on DOSH website for registering to DOSH as Safety Site Supervisor. Someone who wants to register as a site safety supervisor shall –

- A. Malaysian citizen who have at least a diploma in engineering or architect or construction-related fields, and attended site safety supervisor courses at training center registered with DOSH, and have passed site safety supervisor examination managed by NIOSH or institution recognized by DOSH; or
- B. Malaysian citizen who have at least two years' experience as a construction site supervisor or construction sites foreman, and attended site safety supervisor courses at training center registered with DOSH, and have passed site safety supervisor examination managed by NIOSH or institution recognized by DOSH; or
- C. Malaysian citizen who have had at least ten years of experience as a construction site supervisor or construction sites foreman; and have passed site safety supervisor examination managed by NIOSH or institution recognized by DOSH;

For the record, the Department has set some additional qualifications for registration of SSS. The additional registration qualifications are-

- D. Malaysian citizen who have passed safety and health officer (SHO) examination at NIOSH, but not yet registered as an SHO due to less than three (3) years of experience, with the additional requirement which is –
 - i. have experience of at least twelve (12) months in the field of construction; or
 - ii. attended the module 6 (construction safety) from SSS course; or
 - iii. attended site supervisor course conducted by CIDB.
- E. Malaysian citizens who have at least a diploma in occupational health and safety or the equivalent thereof from any professional body or institution approved by the Department, with the additional requirement that –
 - i. have experience of at least six (6) months in the field of construction; or

ii. attended the module 6 (construction safety) from SSS course.

However, the additional registration is only temporary for a period to be determined, and it may be withdrawn in accordance with provisions to be determined by the Director General.

The Department also stipulates that a person cannot hold a certificate of registration as SHO and SSS at the same time. However, the Department does not have any objection to other competency at the same time.

(2) Inspection System

Inspections on OSH sites are carried out by staffs of MOHR, inspectors of Department of Labor are responsible for labor general inspection and OSH inspectors who belong to DOSH carries out inspection regarding to OSH at sites.

DOSH has currently 1085 OSH inspectors, about 200 of them are assigned in headquarters and the remaining inspectors are staffed in state offices. ILO convention No.81 stipulates that inspector is to be a civil servant, and MOHR has set the goal of expanding oversight personnel towards 2020 for a shortage of inspectors. And, DOSH has been currently considering new standards to outsource only a part of inspection of machine so that they are trying to strengthen machine inspections.

Inspection of OSH at sites is carried out using inspection management system called "SMBF" which DOSH has introduced. This system provides a checklist for on-site inspection to inspector, and DOSH's Occupational Safety Inspection Officer inspects on sites based on the checklist corresponding to work contents at each site. Inspection results are entered into the system and immediately reported to DOSH headquarter. DOSH headquarter analyzes the results reported from the inspectors, and makes plans and/or initiatives for improving OSH based on analyzed results.

The construction sites receive the evaluation of 5 grades (A, B, C, D, E) based on the inspection results. And in accordance with evaluation results, DOSH has been considering that high evaluated construction site (A, B) is reduced inspection frequency, low evaluated site (C, D, E) is increased inspection frequency.

OSH inspectors of DOSH has authority to issue an improvement recommendation, a construction cancellation order and a warning letter immediately, when they find unsafe behaviors etc. at sites.

5.5. Measures for Securing Worker's Safety and Health at Workplaces

OSH measures at workplace are stipulated in OSH Legislation. OSH measures in public works etc. are prescribed in Factories and Machinery (Building Operations and Works of Engineering Construction) (Safety) Regulations 1986.

5.6. Measures for Securing Worker's Safety and Health at Construction Sites

Employer is responsible for securing safety and health at workplace under construction contracts in Malaysia, and employer was define as an immediate employer or principle employer or both. Principle employer was defining as an owner of the industry, which can be a client or developer (the owner of the industry) or contractor. Also, all international projects or local projects must comply with OSHA 1994, FMA 1967, and others legislative requirement related to construction activities.

Local companies in Malaysia have many local contractors that meet OSH requirements such as IJM, JOHAWAKI, Sunway Construction. Those companies are awarded OSH Excellence Award nationwide and is certified OSH management system.

Construction companies are obligated to manage for safety at sites in government projects, large companies are usually arranging safety and health managers and safety teams at each site, whereas small and medium-sized enterprises tend to be negative to secure safety at sites because of shortage costs for securing safety for projects.

Workers engaged in construction sites are obligated to obtain green cards (certificates) obtained by CIDB training, and all workers including foreigners must hold it at construction sites. Green cards can be obtained by taking basic courses (one day course), but contents of the course are only training on safety awareness that workers are required at minimum. It is not adequate education to secure safety for workers. Accordingly, CIDB also hold a campaign in order to improve the safety awareness of construction companies, and propose to include safety measures expenses in cost of all construction (Bill of quantities) to the Ministry of Public Works.

Trainers have been training workers based on DOSH's experience and views in inspections of construction machines (tower cranes, mobile cranes, etc.), however appropriate guidelines for training trainers for machine inspections and contents of training program are inadequate.

CIDB also carries out safety checks at construction sites under the jurisdiction of the Ministry of Public Works, separately from the inspections carried out by DOSH. When CIDB staffs find some accidents etc. at sites, reports to DOSH. CIDB conducts assessment on OSH at construction sites based on a system called SHASSIC (Safety and Health Assessment System in Construction: hereinafter referred to as the Assessment). The Assessment is carried out by external experts, and currently there are about 35 evaluators.

CIDB does not have the authority to direct improvements of unsafe behaviors to contractors at sites even when finding them. They only give them advice for improvement method regarding OSH and notice their evaluation results etc. to the construction company. Even if the evaluation results at construction site are lower, CIDB also does not have the authority to impose penalties on construction companies. They plan to implement the Assessment to 100 companies this fiscal year, but it is very few against a whole 16,000 target companies.

The Assessment is an initiative created by government and industrial associations' ideas. In addition to this efforts, related parties involved in construction industry (contractors, developers, governments (PW), other related organizations, etc.) also have been conducting meetings and workshops together, aiming to

improve OSH environment in construction industry. And, Ministry of Public Works and CIDB have had regular meetings. DOSH can suspend construction work in cases unsafe behaviors violated the laws related to OSH at site have been left as it is.

Companies registered with CIDB are rated as seven ranks (G 1 to 7: G 7 is higher) depending on scale of company, etc. Implementation of SHASSIC is stated in construction contract documents of all ranks. However, CIDB have been conducting SHASSIC only for large-scale construction site in reality, because the number of target companies is extremely numerous. In particular, CIDB considers that safety of construction sites with low rank (G1 to G5) is not sufficiently secured, and improvement is critical to reduce accidents in construction field.

5.7. Accident Compensation System for Workers

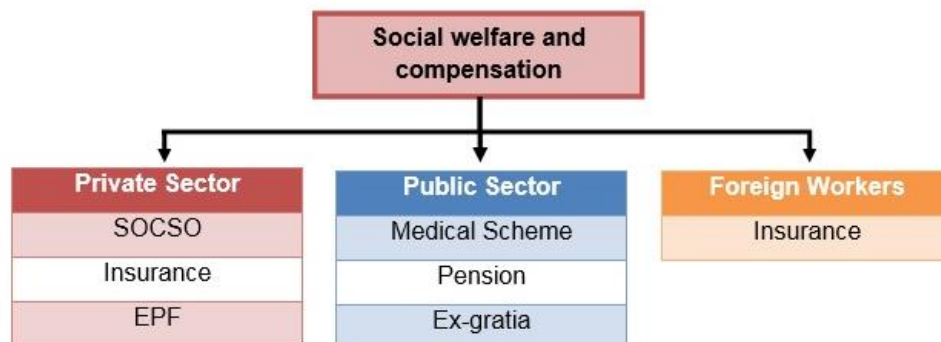
There is no federal government ministry that is responsible for a whole social security system in Malaysia, and Ministry of Health and government related organizations have provided social security services separately. A compensation system for workers' compensation insurance is stipulated in the following the laws. Currently, employees' social security services provides services for limited object person.

- Employees' Social Security Act 1969
- Workmen's Compensation Act 1952

Various type of compensation systems for workers regarding occupational accidents are shown below.

Occupational accidents compensation system

- Ex-Gratia Compensation Scheme
- Employment Injury Scheme
- Invalidity Scheme
- Employment Injury Insurance Scheme
- Foreign Workers Compensation Scheme



*EPF: Pension system

Fig.5.2 Compensation for workers by sector (Source: DOSH)

Social welfare and compensation system in Malaysia has two types for Malaysian and foreign workers.

The social security for foreign workers is based on old law (1952), and the Department of Labor under MOHR have dealt with statistics on foreign workers' accidents. Foreign workers and informal immigrants are treated as well as Malaysian workers in terms of OSH in DOSH's activities.

The workers compensation system of SOCSO provided for Malaysians cover commuting accidents. In recent years, Increasing commuting accidents have become a problem. Many Malaysian workers commute by motorbikes, and more than 70% of them have been in accidents during commuting. Therefore SOCSO cooperates with NIOSH to conduct a training program on safe riding of motorbike, however many companies are unable to give this training to their workers due to shortage of time and budget.

Non-skilled foreign workers are accounting for about 15% of Malaysia's labor force population, and special workers' compensation insurance for them is provided by private insurance companies. SOCSOs are not covered for these foreign workers, government has been considering as of 2015 whether the systems are appropriate or not. Employer is obliged to subscribe to foreign workers compensation insurance covering labor accidents of foreign workers.

5.8. Present Situation of OSH Framework Application for Foreign Workers and its Challenges in the Study Countries

Foreign workers need to comply with OSHA 1994 and FMA 1967 as well as Malaysian workers in Malaysia. Also, Malaysians and foreign workers are treated equally under regulations prescribed by the law. Any persons who breach the rules (FMA 1967, OSHA 1994 and its regulations), the action will be taken accordingly. They can be charged in court and compound can be issued. Stop Work Order will be issued if can cause immediate danger or poor safety performance.

In addition, workers compensation system for foreign workers is in compliance with the old law of 1952 as mentioned above, and is outside the control of statistical data managed by SOCSO. As one of causes of occupational accidents in Malaysia are recognized that many foreign workers (migrants / illegal immigrants) concerned with occupational accidents at site. But it is a problem that statistical data that can prove it are not collected at present.

5.9. Present Situation of OSH Framework Application for Foreign Contractors Joining Works at Local Projects and its Challenges in the Study Countries

Foreign companies need to comply with OSHA 1994 and FMA 1967 as well as Malaysian local companies in Malaysia. Both foreign companies and Malaysians companies are treated equally under regulations prescribed by the law.

6. Collaboration with Foreign Countries on OSH Promotion for Malaysia

6.1. Specific Measures of Disseminating OSH Standards or Rules of Malaysia/Singapore for Foreign Workers

As mentioned above, foreign workers need to comply with OSHA 1994 and FMA 1967 as well as Malaysian workers in Malaysia. Also, Malaysians and foreign workers are treated equally under regulations prescribed by the law. There is a problem that a lack of understanding of foreign workers regarding instruction for OSH rules because of a difficulty of communication with them.

6.2. Past Achievements of International Cooperation Targeting Other Countries on OSH and Possibilities of Further Cooperation

Malaysia has carried out cooperation on Myanmar, Lao PDR, Vietnam, Cambodia, Thailand, etc. in collaboration with international organizations with ASEAN-OSHNET, OIC-OSHNET, JICA and ILO in field of OSH. Cooperation results and overviews to other countries are shown below.

➤ Asia Pacific - OSH (APOSHO)

Malaysia is a member of APOSHO whose aim is to enable an effective network to uplift OSH best practices and programs in the region. Malaysia will be host for 35th Asia and Pacific Occupational Safety and Health Organization (APOSHO) in 2020.

➤ Malaysian ILO Collaboration

Malaysia has collaboration with ILO and participates in various conferences, seminars and workshops. ILO has also provided specialists and advisory to assist in education and training programs held in this country.

➤ ILO - United Nations Development Program

DOSH has collaborated with ILO-UNDP in designing a 'Guidance for the prevention of stress and violence at the workplace' which aims to offer an integrated workplace response to the problems of violence and stress that often manifest themselves together at workplace.

➤ ASEAN - OSHNET

Regional collaboration among ASEAN (Association of Southeast Asian Nations) countries in OSH is the ASEAN - OSHNET (ASEAN Occupational Safety and Health Network) which was launched in 1976. It was recommended that a regional center to collect and disseminate information within ASEAN and to manage research and training for the improvement of working condition and environment be established. The activities of ASEAN-OSHNET comprises of 7 main areas and appointed 7 member countries as Program Area Coordinator.

Malaysia is the coordinating country for Standard development. Guidance Note on OSHMS for SMEs has been developed completely in April 2010 and agreed by ASEAN Members country to implement it in their respective countries. The guidance note had been prepared through joint efforts

of DOSH of Malaysia, Ministry of Health, Labor and Welfare of Japan and Japan Association of Safety and Health Consultant.

➤ **Malaysian - JICA Collaboration (Project to improve the safety and health Administration in DOSH)**

Other international collaborators involved the Malaysian - JICA Collaboration which emphasizes the cooperation with government through Government to Government initiative. That was carried out from year 2007 until 2012. There are two (2) modules involved in the project namely Safety of SMEs and Construction Safety.

➤ **Malaysian - JICA Collaboration: Third Country Technical Program (TCTP)**

DOSH also hosted a Third Country Technical Program (TCTP). This program is jointly organized by DOSH, Ministry of Foreign Affairs and the Japan International Cooperation Program (JICA).

DOSH has held TCTP for one cycle previously, i.e. for the past three years from 2013 until 2015 concentrating on construction safety for Lao PDR, Myanmar and Vietnam. Now the Ministry of Foreign Affairs and JICA has agreed to renew this TCTP for another 3 years from 2016 – 2018, but expanding to not only construction safety but also to Small and Medium Enterprises (SMEs), and DOSH also invited Cambodia to join us. As to date; there are a total of 121 participants from Cambodia, Lao PDR, Myanmar and Vietnam that have received training and benefit from TCTP Program.

➤ **Malaysian Technical Corporation Program (MTCP)**

MTCP's is carried out aimed to share expertises and experiences with developing countries / ASEAN / OIC in the field of OSH, as well as strengthen the bilateral relations between Malaysia and other MTCP recipient countries such as from ASEAN Countries (Brunei, Cambodia, Indonesia, Laos, Myanmar, Philippines, Singapore, Thailand and Vietnam), and other countries (Bangladesh, Bhutan, Sri Lanka, Sudan, Uganda, Egypt, Kenya, Maldives, Nigeria, Palestine, Swaziland, Uzbekistan and Zambia)

The latest Program was held recently on 25th July to 5th August 2016 with participation of ASEAN, OIC and also Africans countries. Up to now, seven MCTP Programs have been conducted by DOSH Malaysia since 2009. A total of 115 participants from 23 countries have been participated for this Program.

➤ **Organization of the Islamic Cooperation (OIC)**

OIC Network for Occupational Safety and Health (OIC-OSHNET) is a transnational networks project under the framework of Vocational Education and Training Program for Islamic Countries (OIC-VET). The establishment of OIC-OSHNET is to establish an international network for systematic sharing of information and experience in OSH issues among professionals, to build up awareness of OSH in OIC Member countries, as well as to improve quality of service in this area.

Besides that, OSH Capacity Building (OHSCaB) Program has been initiated in early 2010 to address the outstanding needs and ways for improving workplace safety and health in OIC member countries. Within this framework, the center is organizing short term OSH training Programs according to needs and capacities of OSH institutions in the member countries of the OIC.

6.3. Complementarity and Advantages of Collaboration with Japan for International Promotion on OSH

(1) Current situation in OSH field of Malaysia

Malaysian government has ratified major ILO conventions, and has established the legal system, the organizational structure, the inspection system, etc., and also has actively taken measures to reduce occupational accidents. In addition, occupational accidents have been steadily decreasing due to the gradual implementation of OSH Master Plan. Although the current accident rate have been becoming a bottom, DOSH began enforcing a new OSH Master Plan aiming further reduction of occupational accidents toward 2020. Meanwhile, it has become difficult to reduce the accident rate by the conventional method, moreover Malaysia has faced further problems such as increasing of commuting accidents, occupational diseases in recent years.

In the enforcement of occupational safety administration, DOSH has engaged to reduce occupational accidents and cultivate preventive culture, however the lack of safety awareness of many foreign workers makes it difficult. For this reason, Malaysia recognizes that it is necessary to analyze, solve and improve issues in an extensive and detail without depending on the conventional method, and to introduce new methods and technologies from the best practices of developed countries.

DOSH has currently utilized statistical data which are integrated the collected data from three organizations to grasp current situation of occupational accidents. That makes it difficult to conduct cross-cutting analysis on new issues. Accordingly, it is an urgent task to improve statistical data collection and analysis methods. And, although the necessity of countermeasures of occupational accidents which foreign workers are involved in is also recognized, concrete measures have not been taken due to shortage of sufficient statistical data has not been gathered.

In the enforcement of the legal system, labor and OSH inspector system has been established, and basic inspection method and penalties in the general and OSH fields have been in place. But DOSH has still some challenges in terms of training trainer to increase the number of inspector, upgrade on of OSH technology and strengthening health technical experts.

From the above, in order to succeed new OSH Master Plan for the development of preventive culture in Malaysia, Malaysia has many problems to be solved, and that is the reason why Malaysia hopes to strengthen cooperative relations with Japan on OSH field. Malaysia has the same area of land as Japan has, and also has many foreign workers as well as Singapore. Malaysia has the own characteristic compared with Japan and Singapore. That makes it difficult to instill government's decision-making to all workers at workplace. And in this respect, the problems in Malaysia are a different with Japan and Singapore. In the Third Country Training Program, a new collaborative framework should be

constructed based on mutual advantages and good practices in both Malaysia and Japan considering the above characteristics.

(2) Third Country Training Program in Malaysia

In the Third Country Training Program conducted by Malaysia in recent years, Malaysia actively cooperates with member countries of OIC - OSHNET (Islamic Cooperation Organization - OSHNET) and ASEAN member countries, and has intended to expand its target in future.

In OIC - OSHNET, Malaysia is in a position to lead OIC's OSH including planning detailed measures based on the model of ASEAN - OSHNET, Malaysia is showing off its presence as a supporting country against the developing countries of OIC. However, MOHR does not have a own budget for third country cooperation, Third Country cooperation undertaken by Malaysia has been implemented with budget from other organizations such as OIC and other countries.

As mentioned above, while there are some sectors and categories that Malaysia hope the cooperation with developed countries towards the development of OSH field in their own country, However the cooperation experience which Malaysia has been implementing to ASEAN and OIC countries through Third country cooperation will be a great advantages when Malaysia and Japan cooperate with Third Country Training Program.

There are also some possibilities to be able to conduct training using Japanese training program at NIOSH in Malaysia utilizing Malaysia's experience of support to Muslim sphere where it is difficult to dispatch Japanese experts, and the training facilities of NIOSH and SOCSO. Hence, Malaysia and Japan have potential for building a strong relationship where mutual benefits can be obtained between both countries through the training program to third countries with corroboration with Japan and Malaysian's experts.

(3) Possibility of support program to Malaysia through Third Country Training Program with JICA

Malaysia has the potential of cooperative work with JICA in Third country cooperation, but Malaysia consider that further technical improvement is necessary for Malaysia to lead developing countries, and DOSH requests the following supports to Japanese government on the basis of their new OSH Master Plan.

- Planning and implementation of training programs aimed at capacity building of OSH staffs in Malaysia
 - History of Master Plan, contents of concrete measures and effective enforcement in Japan.
 - Deepening collaborative research with JNIOASH (Occupational Safety and Health Research Institute) and JISHA
 - Familiarize with OSH culture of other developed countries and Japan
- Initiatives to improve capacity of OSH experts, upgrade statistical data collecting system and improve research technology to support third countries
- Initiatives to improve basic safety awareness of the nation

- Voluntary efforts for safety measures and OSH management in private companies

DOSH has begun a new OSH Master Plan but they don't have an adequate experience in planning and enforcing concrete measures to establish a preventive culture to the national and foreign workers, DOSH is showing high interest in acquiring technology and initiatives to steadily implement their new OSH Master Plan through collaboration with Japanese institutions such as JICA and “Ministry of Health, Labor and Welfare” and JNIOH.

6.4. Points to Attention on International Cooperation on OSH toward the Third Party Countries with JICA

It is necessary to consider the following points to establish the cooperative framework between Malaysia and Japan in response to the request from third countries to JICA in OSH field.

- Member of DOSH and NIOSH are composed of technical staffs who is in charge of occupational safety and health, and their basic technical skill seems no problem. And Malaysia has experiences to support to ASEAN and OIC's developing countries, but the contents of current training are mainly focused basic curriculum, accordingly technical support from Japan is necessary depending on the content of the request from developing countries.
- The inspectors of MOHR belong to Department of Labor and DOSH, and OSH inspectors of DOSH is in charge of inspection of OSH at workplace. Whereas most of them are considered to be inspectors who specialize in safety inspection, inspectors specializing in health are a short number at present. Accordingly technical support of health field from Japan is necessary depending on the content of the request from developing countries.
- Currently Third Country Training Program conducted by Malaysia has been implementing in Malaysia NIOSH, they mainly invite OSH engineers of third countries to Malaysia. DOSH and NIOSH have a lot of achievements utilizing their well-equipped training facilities as a training base. However, the points requiring attention in considering target countries are that there are some countries where it is difficult to dispatch experts for Malaysia also to the countries with safety issues.
- Malaysia's assistance to developing countries is mainly conducted by DOSH and NIOSH staffs, but there are some possibilities not to secure sufficient human resources due to response to domestic trainer demand or shortage of special technical staffs. In securing training instructors for third country training program, number of instructors and schedule might have to consider based on condition of resources of both Japan and Malaysia.
- Japan has few foreign workers, therefore know-how to manage foreign workers in Japan is not sufficient compared to Malaysia, Singapore and others. In order to more effectively disseminate

Japan's OSH technology to Malaysia and similar third-country countries, it is necessary to incorporate Singapore's and Malaysia's experience, which have the challenges of foreign workers, to Japanese OSH technology. The viewpoint of securing the safety of foreign workers is possible to be useful in Japan where there is a possibility that foreign workers will increase in future.

- Since there are some cases that foreign workers' understanding is insufficient in guidance regarding OSH at workplace, and also communication with them could not be smoothly carried out, it is necessary to pay attention to fundamental skills and language problems of third countries. When dispatching experts from Japan to Malaysia NIOSH, it is need to consider language issue of third countries.

- It is essential to clarify incentives in Malaysia in the future in order for Malaysia to actively and continuously implement Third Country Cooperation in collaboration with JICA, also It is critical to build relationships that can mutually benefit such as training of instructors/experts, provision of budget for TCTP to Malaysia and achievement of the targets of third country cooperation through the cooperation between Malaysia and Japan.

7. -8. SINGAPORE

7. Occupational Safety and Health-related Statistics, Legal-systems an Administrative Framework in Singapore

7.1 Profile of Singapore

7.1.1. Official Name of the Country

Republic of Singapore



Fig.7.1 Map of Republic of Singapore (by Study Team)

7.1.2. Area and Population

Area : 719km² (almost equal to Tokyo 23 wards)

Population : 5.54 million (Permanent resident Singaporean & foreigners 3.90 million, and other transient foreigners) in June, 2015

7.1.3. Capital and Location

Capital : Singapore

Latitude : 01.22N Longitude: 103.55E

7.1.4. Climate and Temperature

Mean highest Temp in the daytime : 31.1 °C

Mean lowest Temp in the daytime : 24.8 °C

Lowest Temp in the nighttime : 23~26 °C

Mean Humidity : 74.0% Annual Rainfall: 2,886mm

- Tropical rain-forest climate, located at 136.8km north of the equator: High-temp all the year.
Dry-season (May-Oct) Rainy-season (Nov-April), rather much rainfall with torrential squall in short duration & violent thunders, rather mild climate during Nov to Jan, due to the monsoon)
- High humidity all the year, and 100% repeatedly

7.1.5. Religions and Languages

Religions : Buddhism, Muslim, Christian, Taoism, Hindu
 National language : Malay
 Official language : English, Chinese, Malay, Tamil

7.1.6. Currency

Singapore dollar (S\$) (1US\$=1.37S\$: mean value in 2015)

7.1.7. Numbers of Workers

Table 7.1 Nos of Workers in Singapore

(x10³ persons)

Industry		Overall	Manufacturing	Construction	Service
Citizenship	Local	2,172.20	258.5	118.0	1,773.60
	Foreigner	1,321.60	281.8	359.0	676.40
Total		3,493.80	540.3	477.1	2,450.00

- All the time since the Independence of Singapore, 「Work Permits」for unskilled labors and「Work Passes」for skilled labors had been issued. Up to the end of 1990s, foreign labors had throughout been classified into the 2 categories. In 1998, the classification was altered minutely subdivided into the 3 categories (P, Q, R) and 6 subcategories (P1, P2, Q1, Q2, R1, R2). The「S-Pass」has instead started since 2004 concurrently, with the abrogation of the「Q-2 Pass」.

7.1.8. GDP (2015)

Nominal GDP : 292,739x10⁶US\$
 Nominal GDP per capita : 52,888US\$
 Real GDP Growth-rate : 2.0%

7.1.9. Economics (2015)

- Nov, 2002 Conclusion of Japan-Singapore Economic Partnering Agreement (SEPA: Japan's first EPA)
 Sept, 2007 Revised Protocol of the Agreement enforced
- Trade with Japan
 - Mainly Electronic machines and tools, Both in export and import
 - Trade amount (Min of Finance, Japan Statistics)

Export: J Yen $9,570 \times 10^8$ Import: J Yen $24,030 \times 10^8$

- Direct Investment (JETRO HP)

Internal Direct Investment : $1,937 \times 10^6$ US\$

External Direct Investment : $6,500 \times 10^6$ US\$

7.1.10. Japan's ODA

Table 7.2 Five years' Official Development Assistance by Japan to Singapore immediately before
(10^6 US\$)

Fiscal Year	Gratis Fund	Tech Cooperation	Total
1994	-	13.56	13.56
1995	-	13.53	13.53
1996	-	8.54	8.54
1997	-	3.08	3.08
1998	-	2.27	2.27

(Source: Min of Foreign Affairs, Japan HP)

- Next year to Singapore's Independence, the diplomatic relations between Japan and Singapore was established in 1966, when Japan's ODA to Singapore started, right away. Singapore has remarkably grown up, by putting to a good use the assistance of Japan and other developed countries, coming in 1998 to an end of their assistance.
- Now, Japan and Singapore are collaborating and cooperatively transferring their technology and expertise to various developing countries, for instance, through 'JSPP2011' projects.

- Loan : 127.4×10^8 (up to 1972, no more)
- Gratis Fund : 31.17×10^8 (up to 1987, no more)
- Tech Cooperation : 215.92×10^8 (up to 1998, no more)

(Source: Min of Foreign Affairs, Japan/ JETRO Nov 28, 2016)

[Remarks]

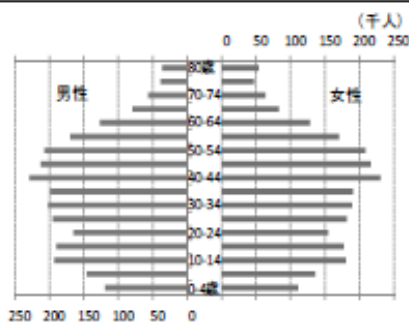
- Common political system and related information of Singapore:
 - Poor in natural resources, for instance, petrol, natural gas, and coal, Singapore does not have major primary-industries. Depending on imports of raw materials, the country has the export-oriented, transit-trade, and highly external-dependent economy, driven by foreign investments.
 - The total population was roughly 5.54 million in 2015, roughly 33 percent up from 2001, but the inflow of foreign-laborers made the rate of increase of the total population exceed that of the permanent residents.
 - The percentage of under-15 population in 2012 dropped to 16.4% from 21.9% in 2000, while over-65 grew to 9.9% from 7.2%. How to cope with the issue of Declining-birthrate and

Aging-population is one of the serious Government's challenges.

- Many of the Government's policies are based on the historic, geographic, or economic conditions specific to Singapore. In other words, considering geographic factors and limited natural resources, the country has always sought to adopt positive ways, that enables to run the state the most efficiently possible and under such policies as that workers' rights have rather been restricted and the labor-policy was emphasized on the cooperation between labor and management.
- As a result, the country's labor-management relationship has been based on Tripartism, that is a harmonious cooperation among the three parties, the Government, Labor-unions, and Employers' associations, that allows them to sustain the good labor-management relations, economic growth, low unemployment, and new fresh jobs.
- The country's policy on occupational safety and health consists in making rules first, that protect workers to a certain-extent and, beyond that, leaving them to consciously defend themselves.
- It is true that accidents still occur, but will be solved through the best-practice, and will prompt the development of tangible safety-oriented culture.
- Some details of the population in Singapore
- Out of the 5.6-million total population, 3 million are Singaporean nationals, 0.9 million are foreigners with customary residency, and the remaining 1.6 to 1.7 million are foreign workers.
 - Out of Singaporean nationals, 70% are Chinese descendants, 10% are Indian descendants, and the remaining 20% are Malaysian descendants.

Population Pyramid

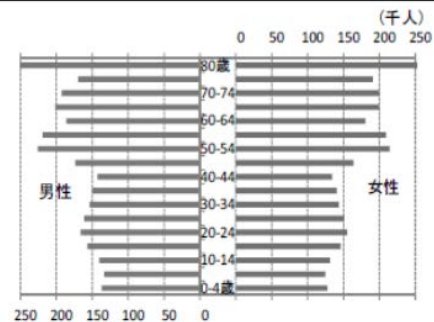
図 特 3-4 人口ピラミッド(2010 年)



Source: UN World Population Prospects the 2010, arranged by MLHW

Population Pyramid

図 特 3-4 人口ピラミッド(2050 年)



Source: UN World Population Prospects the 2010, arranged by MLHW

Fig 7.2 Population Pyramid of Singapore

7.2. Workplace Safety and Health Statistics

(1) Workplace Fatalities, 2004-2013

- Since the launch of the new Framework in 2005, Singapore made good progress towards lowering their workplace fatality rate. It has dropped from 4.9 in 2004 to 2.1 in 2013. The number of workplace fatalities reduced from 83 in 2004 to 59 in 2013 (Fig7.3).

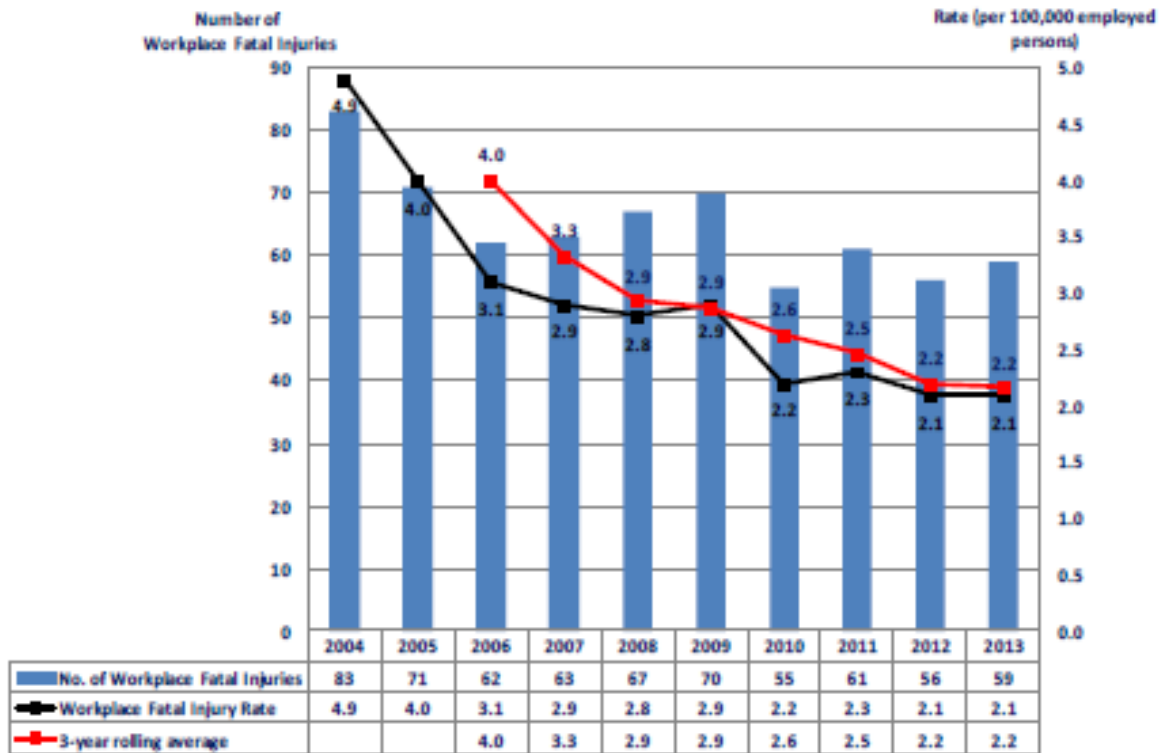


Fig.7.3 Workplace Fatalities, 2004-2013 (Nos and Rate per 100,000 employed persons)

(Source: Ministry of Manpower, Singapore)

Note:

- The WSH (Incident Reporting Regulations) was enacted in 2006, the Factories Act was in force and covered only industrial accidents. For comparison purposes, statistics pertaining to workplace fatalities before 2006 were estimated using work injury compensation data.

- The construction sector continued to register the highest number of workplace fatalities, with 33 fatal injuries up from 26 in 2012. The marine sector reported decreased fatalities in 2013, down to 3 from 6 in 2012. For manufacturing, fatality numbers decreased to 6 in 2013, down from 12 in 2012. Generally, all other sectors saw a decline in their fatalities.

Table 7.3 Number of Workplace Fatalities by Industry and Incident-types, 2012 and 2013

Industry	All	Construction	Marine	Manufacturing	Agriculture & Related Services Activities	Water Supply, Sewerage & Waste Management	Wholesale Trade	Transportation & Storage	Logistics & Transport
Total	59(56)	33(26)	3(6)	6(12)	1(0)	0(1)	1(0)	6(7)	4(7)
Falls	17(17)	11(10)	0(2)	0(1)	1(0)	0(0)	1(0)	0(1)	0(1)
Falls from Heights	14(14)	11(9)	0(1)	0(0)	1(0)	0(0)	0(0)	0(1)	0(1)
Slips, Trips & Falls	3(3)	0(1)	0(1)	0(1)	0(0)	0(0)	1(0)	0(0)	0(0)
Collapse/Failure of Structure & Equipment	10(4)	7(1)	1(0)	1(1)	0(0)	0(0)	0(0)	1(2)	1(2)
Struck by Moving Objects	9(6)	6(3)	1(0)	0(2)	0(0)	0(1)	0(0)	1(0)	1(0)
Electrocution	5(2)	1(1)	1(0)	0(0)	0(0)	0(0)	0(0)	1(1)	0(1)
Caught in/between objects	5(6)	2(1)	0(1)	1(4)	0(0)	0(0)	0(0)	1(0)	1(0)
Crane-related	4(5)	4(3)	0(0)	0(1)	0(0)	0(0)	0(0)	0(1)	0(1)
Collapse of Crane	3(1)	3(1)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Fires & Explosion	2(3)	1(0)	0(0)	1(2)	0(0)	0(0)	0(0)	0(0)	0(0)
Struck by Falling Objects from Heights	1(3)	0(2)	0(0)	0(0)	0(0)	0(0)	0(0)	1(1)	1(1)
Drowning	1(3)	0(0)	0(3)	0(0)	0(0)	0(0)	0(0)	1(0)	0(0)
Suffocation	1(0)	0(0)	0(0)	1(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Exposure to/contact with biological materials	1(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Cave-in of Excavation, Tunnel, etc	0(2)	0(2)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Collapse of Formwork/Failure of its Supports	0(3)	0(3)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Strike Against Objects	0(1)	0(0)	0(0)	0(1)	0(0)	0(0)	0(0)	0(0)	0(0)
Other Incident Types	3(1)	1(0)	0(0)	2(0)	0(0)	0(0)	0(0)	0(1)	0(1)

Notes:

Figures in parenthesis pertain to 2012 figures.

Logistics & Transport is a sub-sector of Transportation & Storage.

Industry	Food & Beverage Service Activities	Telecommunications	Real Estate Activities	Architectural & Engineering Services	Advertising	Rental & Leasing Activities	Business Support Activities	Cleaning & Landscape Maintenance Activities	Gambling & Betting Activities	Repair & Maintenance of Vehicles
Total	0(1)	0(1)	2(0)	1(0)	0(1)	1(0)	0(1)	2(0)	1(0)	2(0)
Falls	0(0)	0(1)	2(0)	0(0)	0(1)	0(0)	0(1)	1(0)	1(0)	0(0)
Falls from Heights	0(0)	0(1)	1(0)	0(0)	0(1)	0(0)	0(1)	1(0)	0(0)	0(0)
Slips, Trips & Falls	0(0)	0(0)	1(0)	0(0)	0(0)	0(0)	0(0)	0(0)	1(0)	0(0)
Collapse/ Failure of Structure & Equipment	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Struck by Moving Objects	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	1(0)
Electrocution	0(0)	0(0)	0(0)	1(0)	0(0)	1(0)	0(0)	0(0)	0(0)	0(0)
Caught in/between objects	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	1(0)
Crane-related	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Collapse of Crane	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Fires & Explosion	0(1)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Struck by Falling Objects from Heights	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Drowning	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Suffocation	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Exposure to/contact with biological materials	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	1(0)	0(0)	0(0)
Cave-in of Excavation, Tunnel, etc	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Collapse of Formwork/ Failure of its Supports	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Strike Against Objects	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Other Incident Types	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)

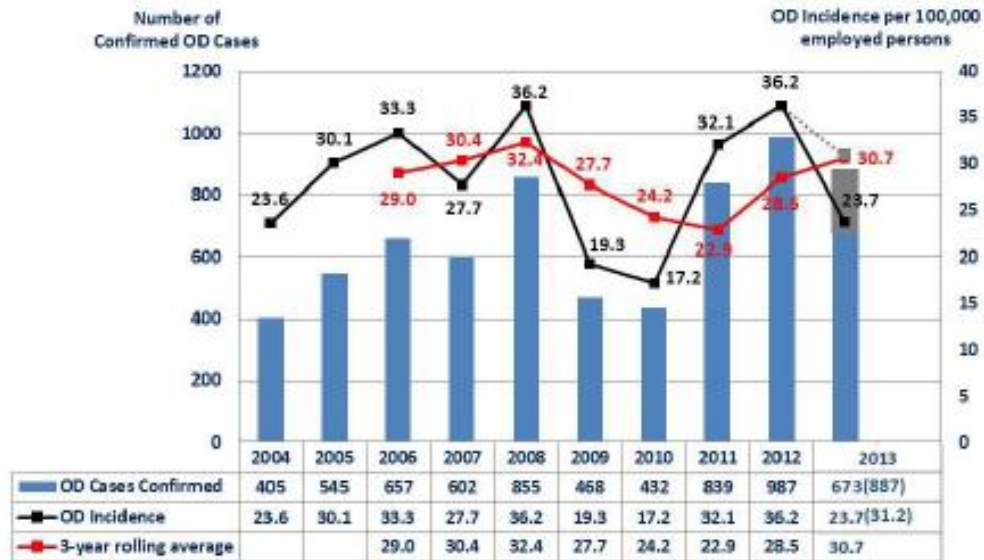
Notes:

Figures in parenthesis pertain to 2012 figures.

Logistics & Transport is a sub sector of Transportation & Storage.

(2) Occupational Diseases, 2004-2013

- For Occupational Diseases (OD), the number of cases confirmed saw a fluctuating trend during the period between 2004 and 2013. In 2013, 673 cases of OD were confirmed. The overall OD incidence stood at 23.7 confirmed cases per 100,000 employed persons in 2013, down from 36.2 one year ago.



Figures in parentheses include back injury cases due to ergonomic risks. Data are not strictly comparable with 2012 data.

Fig.7.4 Nos of Confirmed OD Cases, 2004-2013
(OD incidence per 100,000 employed persons)

(Source: Ministry of Manpower, Singapore)

- Noise Induced Deafness (NID) continued to be the leading type of OD. In 2013, NID accounted for 64% of all confirmed OD cases.

Table 7.4 Nos of Confirmed ODs by type, 2012 and 2013

	2013 ^p	2012
Total	673 (887)	987
Noise Induced Deafness	564	869
NID (E) – Early	544	855
NID (A) – Advanced	20	14
Work-related Musculoskeletal Disorders	23 (237)	18
Tendinitis	11	8
Nerve Disorder such as Carpal Tunnel Syndrome, Cubital Tunnel Syndrome	2	4
Trigger Finger/Thumb	2	3
Cervical Spondylosis	1	0

Musculoskeletal Disorder of the Back	3	1
Back injuries due to ergonomic risks	(214)	n.a.
Others	4	2
Occupational Skin Disease	56	57
Eczema	52	53
Others	4	4
Compressed Air Illness	5	12
CAI Type 1	5	10
CAI Type 2	0	2
Barotrauma	7	10
Aural	3	7
Sinus	4	3
Cancers	2	7
Mesothelioma	2	7
Occupational Lung Disease	9	5
Occupational Asthma	8	4
Tuberculosis (pulmonary)	1	1
Excessive Absorption of Chemicals	4	4
Perchloroethylene (PCE)	0	2
Trichloroethylene (TCE)	0	1
Cadmium	0	1
Lead	4	0
Infectious Disease	0	2
Chemical Poisoning	3	0
Others	0	3
Upper Respiratory Tract Irritation	0	1
Heat Stroke	0	1
Heat Cramps	0	1

Figures in parentheses include WRMSDs-back injury cases due to ergonomic risks. Data are not strictly comparable with 2012 data.

(3) Work Injury Compensation, 2013

- 13,582 work injury claims were awarded compensation in 2013.

More than two-third of the claims were made up of temporary incapacity cases. The total amount of compensation awarded in 2013 was S\$m75.38.

Table 7.5 Nos of Work Injury Compensation Claims and Amount Awarded by Degree of Incapacity, 2013

	Total	Temporary Incapacity ^{1,2}	Permanent Incapacity ^{1,3}	Fatal
Number of Cases Awarded Compensation	<u>13,582</u>	<u>9,039</u>	4,428	115
Amount of Compensation Awarded (S\$m)	\$75.38	\$5.62	\$60.70	\$14.68

(Source: Ministry of Manpower, Singapore)

Note: MC wages indicated in table above may not reflect the full amount paid out to workers as these are computed based on the no. of days of MC/hospitalization leave declared to MoM.

Note:

¹. Includes Occupational Diseases.

². Refers to injury where the incapacity is of temporary nature. Such incapacity reduces the earnings of the employee in any employment in which he was engaged at the time of his accident resulting in his temporary incapacity. The compensation covers medical costs and medical leave wages.

³. Refers to injury where the incapacity is of permanent nature and includes cases where it incapacitates an employee for all work which he was capable of undertaking at the time of the accident resulting in such total incapacity. Such incapacity reduces the earnings of the employee in every employment which he was able to undertake at the time of his accident. The compensation covers medical costs, medical leave wages and percentage of permanent incapacity.

[Remarks]

- Fatal Injuries of Constructions sector in 2015 was much increasing more than at the rate in 2014.
- Strengthening of the Penal-systems and Workplace Safety means & tools were enforced due to the rapid increase of Fatal Injuries in 2015, but the desired results were not particularly obtained. The new [WSH-2018 Strategy], lapping to [WSH-2015 Strategy], has strongly been promoted forward.
- The Fatal Injuries of two years ago fairly decreased and it might have been considered due to that reaction. The Ministry of Manpower is now repeating the campaign-announcement to decrease the accident.

(4) Workplace Fatalities, Incapacities and Occupational Diseases in 2015

Table 7.6 Nos of Fatalities, Incapacities, Occupational Diseases, and Fatal rate per 100,000 employed persons

Year		2014	<u>2015</u>
Overall Injuries	(nos.)	13,595	^{*1} 12,351
Fatal Injuries	(nos.)	60	^{*2} <u>66</u>
Major Injuries	(nos.)	672	^{*3} 597
Minor Injuries	(nos.)	12,863	11,688
Occupational Diseases	(nos.)	992	^{*4} 935
Fatal Injury Rate per 100,000	(nos.)	1.8	<u>1.9</u>

[Remarks]

*1: Construction sector ±2,000 of Overall Injuries

*2: Construction sector 27 alike in 2014

*3: Slips, Trips and Falls 26% / Falls from Height 17%

*4: Noise induced Deafness 53% / Work-related Musculoskeletal Disorder 32%

7.3 Workplace Safety and Health Legal-system, Framework and Implementation- plans

7.3.1 Workplace Safety and Health Legal-system

(1) Workplace Safety and Health Act

- In Singapore, the key Legislation on WSH is provided for by the 「WSH Act」, which is administered by the Commissioner for WSH, Ministry of Manpower. Replacing the former 「Factories Act」, the WSH Act came into effect on 1 Mar, 2006, as the key legal instrument to effect the new 「WSH Framework」.
- The Act is designed to protect employees as well as any other persons who may be affected by the Work carried out at all workplaces. In its first phase of implementation, coverage of the Act was limited to high-risk workplaces, such as construction-worksites, shipyards and other factories i.e. those formerly covered under the former 「Factories Act」. The WSH Act has been extended to cover six new sectors since 1 Mar, 2008 and was expanded to cover all workplaces in Sep, 2011.
- The Act departs from taking a prescriptive-stance under the former legislation and introduces a performance-based regime. It emphasizes the importance of managing WSH proactively by requiring stakeholders to take *reasonably practicable measures* to ensure the safety and health of workers and other persons that may be affected by the Work, being carried out. The WSH Act also assigns liability to those who create, have management and control over WSH risks. The stakeholders include the Occupiers, Employers, Principals, Employees, Manufacturers and Suppliers as well as Persons who erect, install or maintain equipment and machinery.

(2) Workplace Safety and Health Subsidiary Legislations

- Under the WSH Act, there are a total of 25 subsidiary Legislations. 22 of them were Regulations made under the new Act. The remaining 3 subsidiary legislations made under the former Factories Act continue to be in force. Together, they constitute the legislative framework for the management of WSH in Singapore. The subsidiary legislations made under the Factories Act were reviewed and updated before being re-enacted under the WSH Act. This is to ensure that they are in-line with the new WSH framework. The subsidiary legislations are listed and summarized in [\[Annex A\]](#).
- One of the key subsidiary legislations is the 「WSH (Risk Management) Regulations」, which require employers to conduct risk assessment on the work they are undertaking and take steps to eliminate or reduce the risks that workers are exposed to. The intention of the legislation is to enshrine risk assessment as an integral part of business operations, so that WSH risks are proactively reduced.

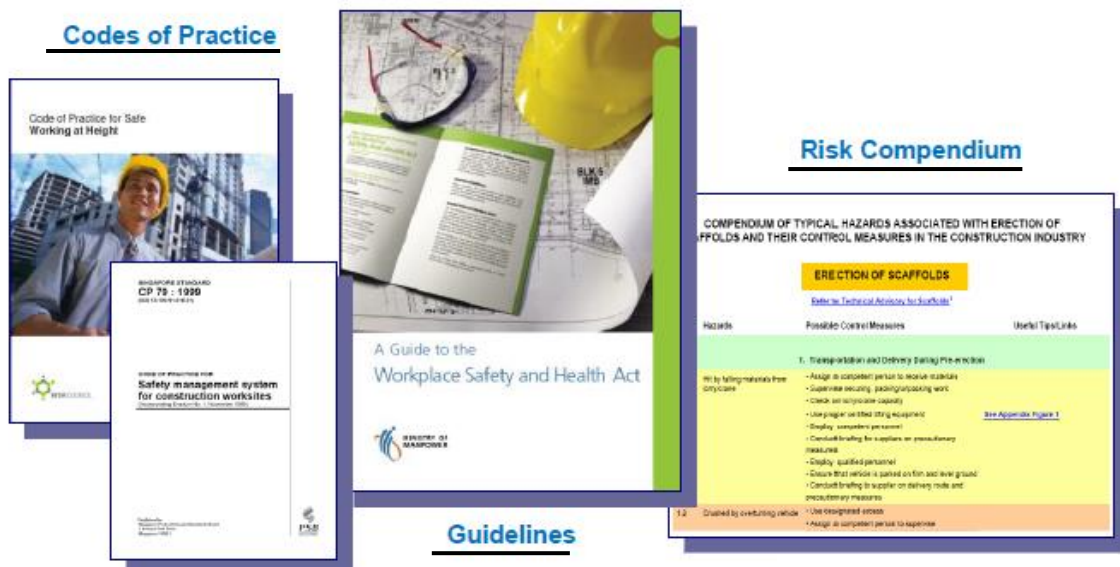
(3) Other Relevant Legislations

- Other relevant Legislations that have an impact on WSH include the Environmental Protection and Management Act, Environmental Public Health Act, Radiation Protection Act and Fire Safety Act. These are administered by other Government-agencies. The purposes of these legislations are

described in [Annex B].

(4) Codes of Practice and Other Guidelines

- Besides legislation, Codes of Practice provide practical safety and health guidance for specific work areas. These are jointly developed by the industry and Regulatory-agencies under the auspices of the Standards, Productivity and Innovation Board (SPRING Singapore).
- When the WSH Act came into effect on 1 Mar, 2006, the Commissioner for WSH was authorized to approve Codes of Practice for the purpose of providing the industry with practical-guidance with regard to the upkeep of safety and health standards at the workplace. With the formation of the WSH Council on 1 Apr, 2008, the WSH Act was amended to transfer the power to issue, approve, amend, or revoke Codes of Practice to the WSH Council. The WSH Council works in close collaboration with the industry to identify areas where practical-guidance is required to address improvements in WSH standards. The WSH Council then set industry standards for these areas, which may include standards for WSH management systems, specific trades and operation of specific equipment.
- The Ministry of Manpower and the WSH Council also issue guidelines on specific subject matters, such as handling and removal of asbestos to complement regulations on the subject. A list containing the Approved Codes of Practices (ACOP) as well as other relevant-legislation and guidelines pertaining to WSH can be found in [Annex B].



(5) International Labor Organizations Conventions

- As a member state of the International Labor Organization (ILO), Singapore is committed to aligning their WSH framework with internationally recognized core Labor Standards. Periodic reviews of their workplace policies and laws are done to ensure alignment with observed international standards.



International Labor Organization
Promoting Decent Work for All

(6) Work Injury Compensation Act

- The government also regulates the right of employees to compensation in the event of work-related injury, death or occupational-disease under the 「Work Injury Compensation (WIC) Act」. The WIC Act took effect in 2008 and was amended in 2012 to enhance the WICA Framework. The key principles underlining the amendments are as follows:
 - Ensuring that the WICA framework, as a no-fault regime, continues to strike a fair balance between compensation for employees and the obligations placed on employers.
 - Ensuring that the WICA framework remains expeditious, so that employees and employers can settle compensation claims without unnecessary delays.
 - Ensuring the clarity of insurance requirements under WICA.
- The 「WIC Act」 provides injured employees with a Low-cost and Expeditious Alternative to 「Common Law」 to settle compensation claims. An employee claiming under the WIC Act only needs to prove that he was injured in a work accident or suffered an occupational disease due to his work. The injured employee can claim from his employer medical leave wages, medical expenses incurred within one year from the date of the accident or up to a cap of \$30,000 whichever is lower, and a lump-sum payment for any permanent incapacity, sustained. A lump-sum payment is also payable to the dependents of an employee who met with a fatal accident at work.
- The work injury compensation insurance is provided by the private-sector and the premiums are Market-driven. It is Mandatory for Employers to purchase work injury compensation insurance for employees who work in sectors that face higher workplace risks. For the remainder, employers have the option of buying insurance or being self-insured. Employers will be required to pay compensation in the event of a valid claim, even if they do not have insurance.

[ANNEX A]

Table 7.7 List of WSH Subsidiary Legislation

	Title of Legislation	Brief Description
1.	WSH (Abrasive Blasting) Regulations 2008	Legislation that regulates safety and health with regard to the use of abrasive blasting
2.	WSH (Composition of Offences) Regulations (Cap 354A, Rg 6)	Legislation to allow the Commissioner to compound an offence in lieu of prosecution
3.	WSH (Confined Spaces) Regulations 2009	Legislation that regulates work in confined spaces
4.	WSH (Construction) Regulations 2007	Legislation that regulates safety and health within construction sites
5.	WSH (Exemption) Order (Cap 354A, O 1)	Legislation that exempts the Singapore Armed Forces from the provision of the Act
6.	WSH (Explosive Powered Tools) Regulations 2009	Legislation that regulates safety and health with regard to the use of explosive powered tools
7.	WSH (First-Aid) Regulations (Cap 354A, Rg 4)	Legislation that mandates the need for selected workplaces to provide first-aid facilities and to appoint first-aiders
8.	WSH (General Provisions) Regulations (Cap 354A, Rg 1)	Legislation governing basic safety and health requirements within factories
9.	WSH (Incident Reporting) Regulations (Cap 354A, Rg 3)	Legislation that mandates the need for employers, occupiers and medical practitioners to report workplace incidents to the Ministry
10.	WSH(Medical Examinations) Regulations 2011	Legislation that mandates medical examination for persons employed in hazardous occupations
11.	WSH (Noise) Regulations 2011	Legislation that regulates safety and health with regard to exposure to excessive noise
12.	WSH (Offences and Penalties) (Subsidiary Legislation under Section 67(14)) Regulations (Cap 354A, Rg 5)	Legislation that allows contravention of any subsidiary legislation made under the repealed Factories Act which is still in force in factories to be fined under the penalties stated in the said legislation.
13.	WSH (Operation Of Cranes) Regulations 2011	Legislation that regulates the safe use of cranes, including mobile and tower cranes and the need for qualified operators, riggers, signalmen and lifting supervisors
14.	WSH (Registration of Factories) Regulations 2008	Legislation that mandates the requirement for factories (including construction sites and shipyards) to be registered or submit a notification with the Ministry

	Title of Legislation	Brief Description
15.	WSH (Risk Management) Regulations (Cap 354A, Rg 8)	Legislation that mandates the need for employer, self-employed person and principal to conduct risk assessment and to take steps to mitigate the risk
16.	WSH (Safety & Health Management System and Auditing) Regulations 2009	Legislation that mandates the requirement for workplaces to implement safety & health management system and to conduct audit
17.	WSH (Scaffolds) Regulations 2011	Legislation that regulates safety and health with regard to the installation, dismantling and use of scaffolds
18.	WSH (Shipbuilding And Ship-Repairing) Regulations 2008	Legislation that regulates safety and health within shipyards and onboard ships in the harbour
19.	WSH (Transitional Provision) Regulations (Cap 354A, Rg 7)	Legislation that allows certain sections of the repealed Factories Act to continue to be in force
20.	WSH (Work at Heights) Regulations 2013	Legislation that regulates work at heights
21.	WSH (Workplace Safety and Health Committees) Regulations 2008	Legislation that mandates the need for occupier of factories to form a WSH committee
22.	WSH (Workplace Safety and Health Officers) Regulations (Cap 354A, Rg 9)	Legislation that regulates the qualifications, training, registration, duties of a WSH Officer as well as mandatory appointment of WSH Officers
23.	Factories (Asbestos) Regulations <i>[currently under review and a new WSH (Asbestos) Regulations will be enacted in 2014 to replace the current Regulations]</i>	Legislation that regulates safety and health with regard to exposure to asbestos
24.	Factories (Registration and Other Services - Fees and Forms) Regulations <i>[currently under review and a new WSH (Fees and Forms) Regulations will be enacted in 2014 to replace the current Regulations]</i>	Legislation that regulates fees to be charged for pressure vessel inspections and approval of third party inspection agency, scaffold contractor, crane contractor and authorised examiner.
25.	Factories (Safety Training Courses) Order	Legislation that mandates safety and health training courses to be undertaken by specific personnel.

[ANNEX B]

Table 7.8 Other Legislations, Codes of Practices and Guidelines Relevant to WSH

(1) APPROVED CODES OF PRACTICE

<i>Approved Codes of Practice</i>	<i>Year Published</i>
1. Code of Practice for Working Safely at Heights	2013
2. Code of Practice on WSH Risk Management	2012
3. Code of Practice on Safe Lifting Operations in the Workplaces	2011
4. SS 98: Specification for Industrial safety helmets	2005
5. SS 280: Specification for Metal scaffoldings Part 1: Frame scaffoldings	2006
6. SS 280: Specification for Metal scaffoldings Part 2: Modular scaffoldings	2009
7. SS 311: Specification for Steel tubes and fittings used in tubular scaffolding	2005
8. SS 473: Specification for Personal eye-protectors Part 1: General requirements	2011
9. SS 473: Specification for Personal eye-protectors Part 2: Selection, use and maintenance	2011
10. SS 497: Code of Practice for Design, safe use and maintenance of gantry cranes, overhead travelling cranes and monorail hoists	2011
11. SS 506: Occupational safety and health (OSH) management system Part 1: Requirements	2009
12. SS 506: Occupational safety and health (OSH) management system Part 2: Guidelines for the implementation of SS 506: Part 1: 2009	2009
13. SS 506: Occupational safety and health (OSH) management system Part 3: Requirements for the chemical industry	2006
14. SS 508: Specification for Graphical symbols — Safety colours and safety signs Part 1: Design principles for safety signs in workplaces and public areas	2004
15. SS 508: Specification for Graphical symbols — Safety colours and safety signs Part 2: Design principles for product safety labels	2008
16. SS 508: Specification for Graphical symbols — Safety colours and safety signs Part 3: Safety signs used in workplaces and public areas	2004
17. SS 508: Specification for Graphical symbols — Safety colours and safety signs Part 4: Design principles for graphical symbols for use in safety signs	2008
18. SS 510: Code of Practice for Safety in welding and cutting (and other operations involving the use of heat) (Formerly CP 50)	2005

19. SS 511: Code of Practice for Diving at work	2010
20. SS 513: Specification for Personal protective equipment — Footwear Part 1: Safety footwear	2005
21. SS 513: Specification for Personal protective equipment — Footwear Part 2: Test methods for footwear	2005
22. SS 514: Code of Practice for Office ergonomics	2005
23. SS 528: Specification for Personal fall-arrest systems Part 1: Full-body harnesses	2006
24. SS 528: Specification for Personal fall-arrest systems Part 2: Lanyards and energy absorbers	2006
25. SS 528: Specification for Personal fall-arrest systems Part 3: Self-retracting lifelines	2006
26. SS 528: Specification for Personal fall-arrest systems Part 4: Vertical rails and vertical lifelines incorporating a sliding-type fall arrester	2006
27. SS 528: Specification for Personal fall-arrest systems Part 5: Connectors with self-closing and self-locking gates	2006
28. SS 528: Specification for Personal fall-arrest systems Part 6: System performance tests	2006
29. SS 531: Code of Practice for Lighting of work places Part 1: Indoor	2006
30. SS 531: Code of Practice for Lighting of work places Part 2: Outdoor	2008
31. SS 531: Code of Practice for Lighting of work places Part 3: Lighting requirements for safety and security of outdoor work places	2008
32. SS532: Code of Practice for The storage of flammable liquids	2007
33. SS 536: Code of Practice for The safe use of mobile cranes (Formerly CP 37)	2008
34. SS 537: Code of Practice for Safe use of machinery Part 1: General requirements	2008
35. SS 537: Code of Practice for Safe use of machinery Part 2: Woodworking machinery	2009
36. SS 541: Restraint belts Amendment 1 (2012)	2008
37. SS 548: Code of Practice for Selection, use, and maintenance of respiratory protective devices (Formerly CP 74)	2009
38. SS 549: Code of Practice for Selection, use, care and maintenance of hearing protectors (Formerly CP 76)	2009
39. SS 550: Code of Practice for Installation, operation and maintenance of electric	2009

passenger and goods lifts (Formerly CP 2)	
40. SS 553: Code of Practice for Air-conditioning and mechanical ventilation in buildings (Formerly CP 13)	2009
41. SS 554: Code of Practice for Indoor air quality for air-conditioned buildings	2009
42. SS 557: Code of Practice for Demolition (Formerly CP 11)	2010
43. SS 559: Code of Practice for Safe use of tower cranes (Formerly CP 62)	2010
44. SS 562: Code of Practice for Safety in trenches, pits and other excavated areas	2010
45. SS 567: 2011 Code of Practice for Factory layout — Safety, health and welfare considerations (Formerly CP 27)	2011
46. SS 568: 2011 Code of Practice for Confined spaces (Formerly CP 84)	2011
47. SS 569: Code of Practice for Manual handling (Formerly CP 92)	2011
48. SS 570: Specification for Personal protective equipment for protection against falls from a height — Single point anchor devices and flexible horizontal lifeline systems	2011
49. SS 571: Code of Practice for Energy lockout and tagout (Formerly CP 91)	2011
50. SS 573: Code of Practice for The safe use of powered counterbalanced forklifts (Formerly CP 101)	2012
51. SS580: Code of Practice for Formwork (Formerly CP 23)	2012
53. SS 586: Specification for Hazard communication for hazardous chemicals and dangerous goods Part 2: Globally harmonised system of classification and labelling of chemicals — Singapore's adaptations	2008
54. SS 586: Specification for Hazard communication for hazardous chemicals and dangerous goods Part 3: Preparation of safety data sheets (SDS)	2008
55. CP 5: Code of Practice for Electrical installations Amendment 1 (2008)	1998
56. CP 14: Code of Practice for Scaffolds	1996
57. CP 20: Code of Practice for Suspended scaffolds	1999
58. CP 63: Code of Practice for The lifting of persons in work platforms suspended from cranes	1996 (2005)
59. CP 79: Code of Practice for Safety management system for construction worksites	1999
60. CP 88: Code of Practice for Temporary electrical installations Part 1: Construction and building sites	2001
61. CP 88: Code of Practice for Temporary electrical installations Part 2: Festive lighting, trade-fairs, mini-fairs and exhibition sites	2001

62. CP 88: Code of Practice for Temporary electrical installations Part 3: Shipbuilding and ship-repairing yards	2004
63. CP 99: Code of Practice for Industrial noise control	2003

[Note: CP-Code of Practice, SS-Singapore Standards]

Table 7.9 (2) LEGISLATION, CODES OF PRACTICES AND GUIDELINES FOR SPECIFIC WSH ISSUES

	Scope of Coverage	Legislation	Codes of Practice / Guidelines (not exhaustive)
1.	Asbestos	<ul style="list-style-type: none"> • Environmental Protection and Management Act (Chapter 94A)¹⁰ • WSH (Asbestos) Regulations 	<ul style="list-style-type: none"> • Guidelines on the Removal of Asbestos Materials in Buildings • Guidelines on the Handling of Asbestos Materials • WSH Guidelines on Management and Removal of Asbestos
2.	Chemical Hazards	<ul style="list-style-type: none"> • WSH (General Provisions) Regulations • Environmental Protection and Management Act (Chapter 94A)¹ 	<ul style="list-style-type: none"> • Worker's Safety Handbook-Working with Hazardous Materials • Guidelines on Management of Hazardous Chemicals Programme • CP 61 - CP for Packaging and Containers for Hazardous Substances • SS 286 - SS on Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods • SS 586: Specification for Hazard communication for hazardous chemicals and dangerous goods Part 1: Transport and storage of dangerous goods • SS586: Specification for Hazard communication for hazardous chemicals and dangerous goods Part 2: Globally harmonised system of classification and labelling of chemicals — Singapore's adaptations • SS 586: Specification for Hazard communication for

	Scope of Coverage	Legislation	Codes of Practice / Guidelines (not exhaustive)
			hazardous chemicals and dangerous goods Part 3: Preparation of safety data sheets (SDS)
3.	Confined Space Safety	<ul style="list-style-type: none"> WSH (Confined Space) Regulations 	<ul style="list-style-type: none"> SS 568: 2011 Code of Practice for Confined spaces (Formerly CP 84) Technical Advisory for Working Safely in Confined Spaces Confined Space Safety Guidebook for Supervisors & Workers
4.	Construction Safety	<ul style="list-style-type: none"> WSH (Construction) Regulations 	<ul style="list-style-type: none"> CP 11 - CP for Demolition *CP 14 - CP for Scaffolds *CP 20 - CP for Suspended Scaffolds *CP 23 - CP for Formwork SS 536 - CP for the Safe Use of Mobile Cranes SS 515 - CP for Supervision of Structural Works CP 62 - CP for the Safe Use of Tower Cranes *CP 63 - CP for the Lifting of Persons in Work Platforms Suspended from Cranes *CP 88-1 - CP for Temporary Electrical Installations - Construction and Building Sites *CP 88-3 - CP for Temporary Electrical Installations - Shipbuilding and Ship-repairing Yards Guidelines on Design for Safety in Buildings and Structures
5.	Diving	-	<ul style="list-style-type: none"> SS 511 - CP for Diving at Work
6.	Environmental Health and Pollution	<ul style="list-style-type: none"> Environmental Protection and Management Act (Chapter 94A)¹ Environmental Public Health Act (Chapter 95)⁷ Radiation Protection Act (Chapter 262)⁸ 	<ul style="list-style-type: none"> CP 100 - CP for Hazardous Waste Management WSH Guidelines on Toxic Industrial Waste Treatment

	Scope of Coverage	Legislation	Codes of Practice / Guidelines (not exhaustive)
7.	Ergonomics and Lighting	-	<ul style="list-style-type: none"> • SS 514 - CP for Office Ergonomics • CP 99 - CP for Manual Handling • SS 531- 1: CP for Lighting of Work Places, Indoor • *SS531-2 : CP for Lighting of Work Places, Outdoor • *SS531-3 : CP for Lighting of Work Places, Lighting requirements for safety and security of outdoor work places • WSH Guidelines on Improving Ergonomics in the Workplace
8.	Fire Safety	<ul style="list-style-type: none"> • Fire Safety Act (Chapter 109A)³ • WSH (General Provisions) Regulations 	-
9.	First Aid	<ul style="list-style-type: none"> • WSH (First Aid) Regulations 	<ul style="list-style-type: none"> • Guidelines on First Aid Requirements
10.	Machinery Safety	<ul style="list-style-type: none"> • WSH (General Provisions) Regulations 	<ul style="list-style-type: none"> • CP 42 - CP for Guarding and Safe Use of Woodworking Machinery • *CP 91 - CP for Lockout Procedure • *SS 536 - CP for Safe Use of Mobile Cranes • *CP 62 - CP for Safe Use of Tower Cranes • CP 53 - CP for Safe Use of Industrial Robots • *CP 101 - CP for Safe Use of Powered Counterbalanced Forklifts • Worker's Safety Handbook for Crane Operator • Guidebook for Lifting Supervisors • WSH Guidelines on Safe Operation of Forklift Trucks
11.	Medical Examinations	<ul style="list-style-type: none"> • WSH (Medical Examinations) Regulations 	<ul style="list-style-type: none"> • WSH Guidelines on Management of Hazardous Chemicals Programme • WSH Guidelines on Diagnosis and Management

	Scope of Coverage	Legislation	Codes of Practice / Guidelines (not exhaustive) of Occupational Diseases
12.	Noise and Vibration	<ul style="list-style-type: none"> WSH (Noise) Regulations 	<ul style="list-style-type: none"> WSH Guidelines on Hearing Conservation Programme Worker's Safety Handbook- Working in Noisy Environment SS549 - CP for the Selection, Use, Care and Maintenance of Hearing Protectors CP 99 - CP for Industrial Noise Control
13.	WSH Management Systems	-	<ul style="list-style-type: none"> SS506 – 1: Occupational Safety and Health Management System – Specifications SS506 – 2: Occupational Safety and Health Management System – General guidelines for the implementation of OSH management system SS506 – 3: Occupational Safety and Health Management System – Requirements for the chemical industry *CP 79 - CP for Safety Management System for Construction Worksites
14.	Work At Heights	WSH (Work At Heights) Regulations	<ul style="list-style-type: none"> Code of Practice for Working Safely at Height Code of Practice on WSH Risk Management WSH Guidelines on Working Safely on Roofs WSH Guidelines on Personal Protective Equipment for Work At Heights WSH Guidelines on Anchorage, Lifelines and Temporary Edge Protection Systems Ladder Safety Guide Work at Heights Supervisor's Guidebook for the Marine Industries

Notes:

* refers to Approved Codes of Practice

¹ An Act to consolidate the laws relating to environmental pollution control, to provide for the protection and management of the environment and resource conservation, and for purposes connected therewith. (Administered by the National Environment Agency)

² An Act relating to quarantine and the prevention of infectious diseases. (Administered by the Ministry of Health)

³ An Act to provide for the control, licensing and inspection of private hospitals, medical clinics, clinical laboratories and healthcare establishments, and for purposes connected therewith. (Administered by the Ministry of Health)

⁴ An Act to prohibit or otherwise regulate the possession, use, import, transshipment, transfer and transportation of biological agents, inactivated biological agents and toxins, to provide for safe practices in the handling of such biological agents and toxins. (Administered by the Ministry of Health)

⁵ By the Genetic Modification Advisory Committee, Ministry of Trade and Industry.

⁶ By the Ministry of Education.

⁷ An Act to consolidate the law relating to environmental public health and to provide for matters connected therewith. (Administered by the National Environment Agency, Ministry of the Environment and Water Resources)

⁸ An Act to control and regulate the import, export, manufacture, sale, disposal, transport, storage, possession and use of radioactive materials and irradiating apparatus, to make provision in relation to the non-proliferation of nuclear weapons and to establish a system for the imposition and maintenance of nuclear safeguards, and to provide for matters connected therewith. (Administered by the National Environment Agency, Ministry of the Environment and Water Resources)

⁹ An Act to make provisions for fire safety and for matters connected therewith. (Administered by Civil Defence Force, Ministry of Home Affairs)

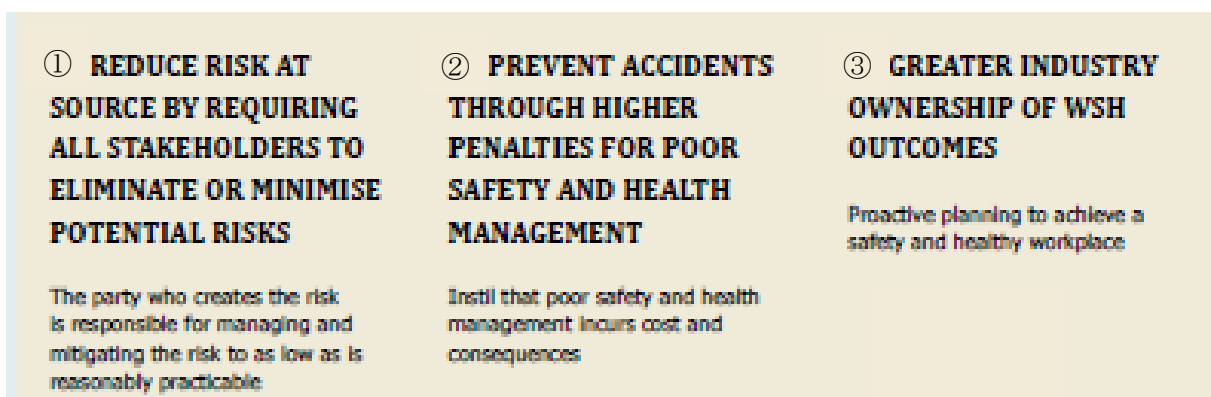
7.3.2 WSH-Institutional Framework

1) WSH Framework

a Principles of WSH Framework

- First conceptualized in 2005, Singapore's 「Workplace Safety and Health (WSH) Framework」 guides all stakeholders including the Government, Industry, as well as all Employees in the management of WSH. Collectively, the framework aims to cultivate a shift in the mindset of all Stakeholders towards WSH to take pre-emptive steps to ensure the safety and health of all individuals at the workplace from top-management to the last-worker.

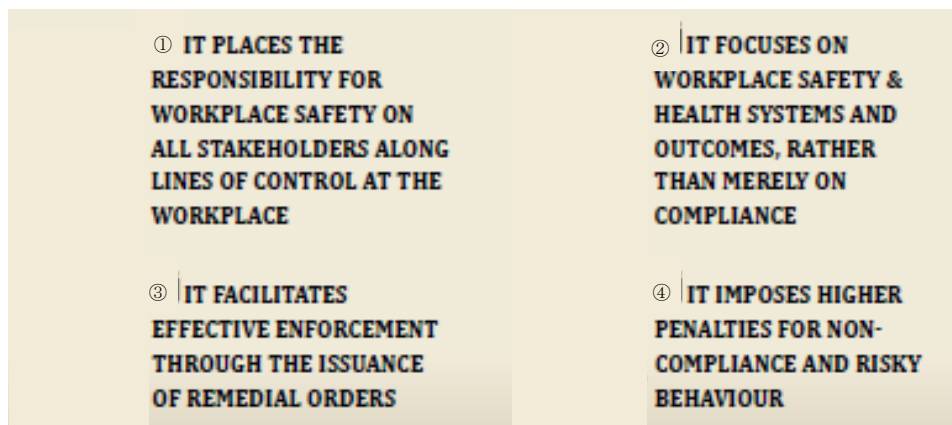
- WSH Framework is based on three Key Principles.



b Workplace Safety & Health Act

- To support the WSH Framework, the「Workplace Safety and Health Act (WSHA) 」was enacted in 2006. It emphasizes the importance of managing WSH proactively by requiring stakeholders to take reasonably practicable measures to ensure the safety and health of persons affected by the work being carried out.

- Four Key Features of WSH



- WSHA also assigns liability to those who create, have management and control over workplace safety and health risks.

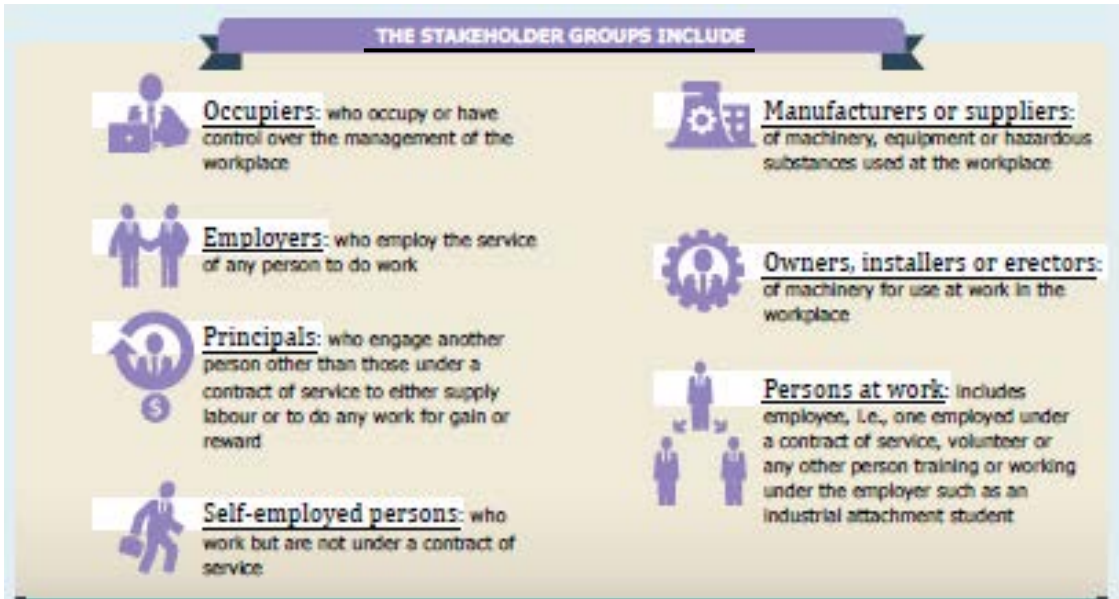


Fig.7.5 Stakeholder Groups

C Work Injury Compensation Act

- The 「Work Injury Compensation Act (WICA)」 is another legal instrument that governs WSH in Singapore. It provides injured employees with a low-cost and expeditious alternative to 「Common Law」 to settle compensation claims.
- The WICA allows employees who have sustained injuries in work-related accidents or contracted occupational-diseases to claim work injury compensation. Dependents of employees who died in work-related accidents are also eligible for compensation. Engaging a lawyer to file a WICA claim is not required and there is no cost involved in filling a work injury compensation claim with MoM.



- Under the WICA, the employer (or employer's insurer) is liable to pay the compensation, regardless of who is at fault, as long as the employee suffered an injury due to an accident arising out of and in the course of his employment or contracted an occupational-disease. The liability remains even after the employment has ceased or the 「Work Pass (Foreign workers)」 has been cancelled. An injured employee can claim from either 「WICA」 or 「Common law」, but not from both.
- The Work Injury Compensation Act (WICA) provides injured employees with a low-cost and expeditious alternative to Common Law to settle compensation claims.



Fig.7.6 Main Differences between WICA-Claim and Common Laws-Claim

d Workplace Safety and Health-2018 (WSH-2018 Strategy)

The national target for WSH is to achieve a workplace fatality rate of **1.8 PER 100,000 WORKERS**

- To support this target, MoM together with WSH Council launched the national 「WSH-2018 strategy」 document in 2009. It outlines the four strategic outcomes that contribute to their vision of 「a Safe and Healthy Workplace for everyone and a country renowned for best-practice in WSH」, as well as the four strategies to achieve these outcomes.

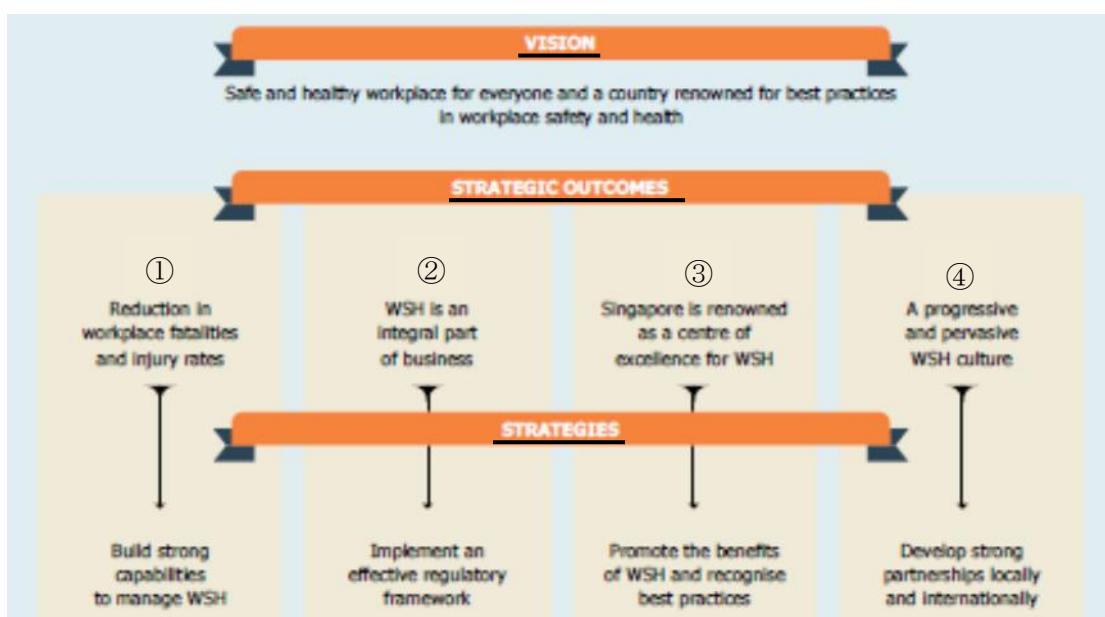
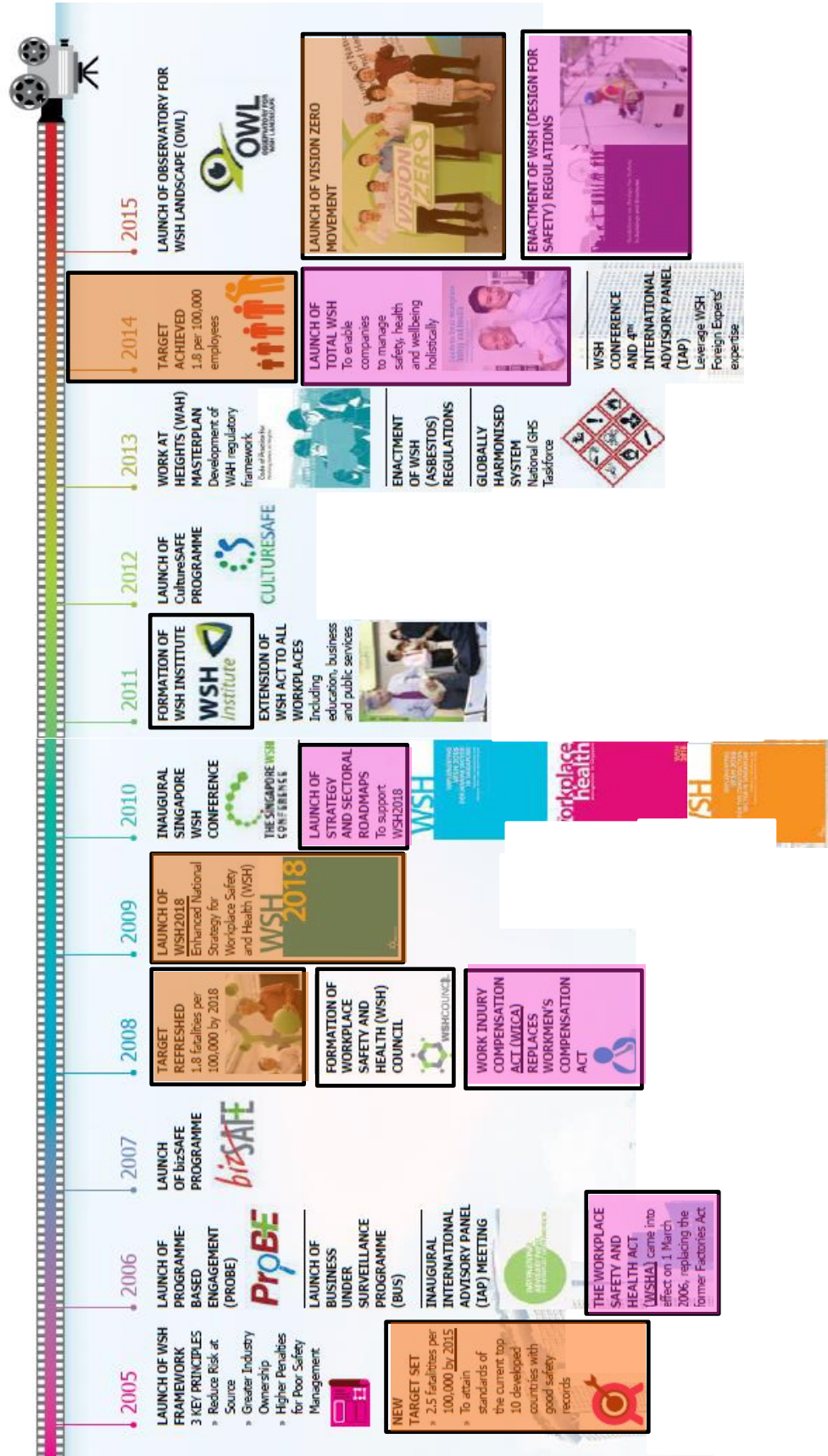


Fig 7.7 「WSH-2018 (WSH-2018) Strategy」

Fig 7.8 MINISTRY OF MANPOWER –OSHD 10 YEARS’ JOURNEY ON WSH

シンガポール人材開発省 労働安全衛生局
労働安全衛生施策フレームワーク/10年の歩み



7.3.3 Implementation of Workplace Safety and Health (WSH-2018 Strategy): Means and Tools

- To guide the future development of programs and initiatives, the (WSH-2018 Strategy): A Strategy for Workplace Safety and Health in Singapore replaced (WSH-2015 Strategy) for WSH. 「WSH-2018 Strategy」 was crafted after extensive consultation undertaken by the MoM, the former WSHAC and other Industry partners.
- To realize their goals of having one of the best safety records in the world, the right mindset and attitude are needed at the workplace to reinforce the importance of WSH. 「WSH-2018」 makes explicit the need to establish a progressive and pervasive Safety and Health Culture as one of the Four Strategic Outcomes. These outcomes set out their national targets for a world-class regime in WSH, articulate the characteristics that Singapore must demonstrate to become a Centre of Excellence for WSH and describe the behavior that stakeholders must possess for a vibrant WSH culture to be integrated as a way of life.

(1) 「WSH-2018 Strategic Map」



Fig.7.9 A National Strategy for WSH In Singapore

(2) Strategic Implementations of Occupational Safety and Health

a STRATEGY 1 : BUILDING STRONG CAPABILITIES TO BETTER MANAGE WSH

- For there to be reforms and excellence in WSH standards, a good foundation is essential. Stakeholders-Management, WSH professionals, Line supervisor and Workers-need to have the right mindset that WSH is a priority and to have the motivation to tackle WSH issues competently. The right support is required to drive the building of strong capabilities in terms of strong institutions, quality training providers as well as accessible and relevant financial and education resources.

b STRATEGY 2 : IMPLEMENT AN EFFECTIVE REGULATORY FRAMEWORK

- On top of capability building, an effective regulatory framework is vital to ensure that WSH standards are maintained. This is done by implementing the Workplace Safety and Health Act (WSHA) and Work Injury Compensation Act (WICA). Targeted interventions and enforcement actions are developed based on a comprehensive analysis of Industry trends and Developments.

c STRATEGY 3 : PROMOTE THE BENEFITS OF WSH AND RECOGNISE BEST PRACTICES

- To encourage businesses to adopt good WSH practices and develop a pervasive WSH culture, it is important they recognize that incorporating WSH into their workplaces will enhance Business Competitiveness, create a good Corporate Image, and promote Productivity and Efficiency. It is also important that the workforce embrace WSH as a fundamental aspect to their daily work.

- At the same time, Exemplary Businesses and Workers should be recognized for demonstrating good WSH practices and behavior and have them share their experiences with the industry to encourage cross-learning and facilitate an environment of continuous improvement.

d STRATEGY 4 : DEVELOP STRONG PARTNERSHIP LOCALLY AND INTERNATIONALLY

- Elevating the WSH landscape in Singapore requires the collective effort and cooperation between MoM, WSH Council, WSH Institute and all Industry stakeholders. It is therefore important to Build Strong Ties among the various Stakeholders, so as to leverage on one-another's strengths and knowledge.

戦略的施策1: さらなる労働安全衛生管理に向けての強力な機能の構築

Table 7.10 Strategy 1: Building Strong Capabilities to Better Manage WSH

ITEMS	towards LABORES	towards LABOR UNIONS	towards EMPLOYERS	towards EXECUTIVES	towards GOV. ORGNIZ'S	towards SUPPLYERS	toward TRAINING PROVIDERS	REMARKS
(1) Risk Management リスクマネジメント <u>Risk Management (RM) Competency Requirement</u>			○	○	○			
(2) WSH Culture 労働安全衛生文化 <u>Culture SAFE Programme</u> ・Culture Fund ・Breakfast Dialogues			○	○				
(3) Competency Development 能力開発 <u>Enhancing Competencies and Capabilities for Work at Heights Safety</u> ・Launch of Work at Heights (WAH) Courses ・Train the Trainer (TTT) Course for WAH ・Launch of the2-day CSOC incorporating WAH Elements <u>Enhancing Competencies and Capabilities for Crane Safety</u> ・Training Course for Appointed Persons for Lifting Operations ・Practical Workshop for Lifting Personnel <u>bizSAFE Programme</u> <u>Risk Management Assistance Fund (RMAF)</u>	○		○	○			○	
(4) Practical Assistance 実務的援助 ・ <u>Code of Practice for Working Safely at Heights (Second Revision)</u> ・ <u>Code of Practice for Safe Lifting Operations in the Workplaces (Second Revision)</u> ・ <u>Workplace Safety and Health Guidelines – Investigating Workplace Incidents for SMEs</u> ・Chemical Industry Case Studies ・WSH Guidelines on Hospitality and Entertainment Industries ・ <u>WSH Guidelines on Workplace Traffic Safety Management</u> ・ <u>Forlift Safety Pack</u> ・Kitchen Safety and Health Pack ・ <u>Activity-Based Checklists</u> ・Tentage Safety Industry-Based Checklist	○		○		○		○	
	○		○		○		○	
	○		○	○	○	○	○	
	○	○	○	○	○	○	○	
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	○	○	○	○	○	○	○	

ITEMS	towards LABORES	towards LABOR UNIONS	towawrds EMPLOYERS	towards EXECUTIVES	towards GOV. ORGNIZ'S	towards SUPPLYERS	toward TRAINING PROVIDERS	REMARKS
(5) Competency Delivery 適正資格の提供 • Requirement of full Advanced Certificate in Training and Assessment (ACTA) for all Trainers <u>Audit of Accredited Training Providers (ATP)</u> <u>WSH Train-the-Trainers (T3) Programme</u>			○	○	○		○	
(6) Broadened Base of WSH Statistics 広範なWSH統計ベース	○	○	○	○	○	○		
(7) Incident Investigation 事故調査	○	○	○	○	○	○		
(8) WSH Institute 労働安全衛生研究所		○		○	○	○		

戦略的施策2:実効性ある法的フレームワークの実行

Table 7.11 Strategy 2: Implementing an Effective Regulatory Framework

ITEMS	towards LABORES	towards LABOR UNIONS	towawrds EMPLOYERS	towards EXECUTIVES	towards GOV. ORGNIZ'S	towards SUPPLYERS	toward TRAINING PROVIDERS	REMARKS
<p>(9) Legislative Review 法令・規則の見直し</p> <p><u>Active Review and Industry Consultation</u></p> <ul style="list-style-type: none"> •WSH(Medical Examinations) Regulations •Work Injury Compensation (Workers' Fund) Regulations •Workplace Safety and Health (Incident Reporting) Regulations and Work Injury Compensation Regulations •WSH (Asbestos) Regulations •Revocation of Factories (Person In Charge) Regulations & Factories (Certificate of Competency-Examinations) Regulations <p><u>New WSH Subsidiary Legislation</u></p> <ul style="list-style-type: none"> •WSH (Work at Heights) Regulations 	○	○	○	○	○	○	○	
<p>(10) Strategic Intervention 戦略的介入</p> <p><u>Targeted Enforcement Operations</u></p> <ul style="list-style-type: none"> •Operation Skylark 2013 •Operation Peregrine •Operation Flamingo <p><u>Regular Inspections and Audit Checks for Work Injury Compensation (WIC) Insurance Compliance</u></p> <p><u>Tightening WIC Investigations and Enforcement Actions</u></p> <p><u>Cluster Operations</u></p> <p><u>Demerit Point System</u></p> <p><u>Business under Surveillance</u></p> <p><u>Accident Investigations</u></p> <p><u>Licensing</u></p>	○	○	○	○	○	○	○	
<p>(11) Enhancing Self Regulations 自己規制の強化</p>								
<p>(12) Differentiated Regulatory Approach for Workplace Health 職場衛生のための特別な法的規制へのアプローチ</p> <p><u>Noise Induced Deafness Prevention Programme</u></p> <p><u>Management of Hazardous Chemicals Programme</u></p>		○	○	○	○	○	○	

ITEMS	towards LABORES	towards LABOR UNIONS	towardrds EMPLOYERS	towards EXECUTIVES	towards GOV. ORGNIZ'S	towards SUPPLYERS	toward TRAINING PROVIDERS	REMARKS
<u>Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)</u>		○	○	○	○	○		
<u>National Asbestos Control Programme</u>		○	○	○	○	○	○	
<u>Confined Space Management Programme</u>	○	○	○	○	○		○	
(13) Extended Enforcement Reach 施策実行範囲の拡大								
<u>Auxiliary Enforcement Agency (AEA)</u>	○	○	○	○	○	○	○	
<u>Joint Inspections</u>	○	○	○	○	○	○	○	
(14) Resolution of Systemic Lapses システム過誤の解決		○	○	○	○	○	○	

戦略的施策3: ベストプラクティスの認識と労働安全衛生メリットの職場への取り込み

Table 7.12 Strategy 3: Promoteing Benefits of WSH & Recognising Best Practices

ITEMS	towards LABORES	towards LABOR UNIONS	towardrds EMPLOYERS	towards EXECUTIVES	towards GOV. ORGNIZ'S	towards SUPPLYERS	toward TRAINING PROVIDERS	REMARKS
(15) Recogniton 労働安全衛生の認識								
<u>Workplace Safety and Health (WSH) Awards 2013</u>	○	○	○	○	○	○	○	
<u>bizSAFE Convention 2013</u>	○	○	○	○	○	○	○	
(16) Information Dissemination & Hazards Communication 情報とハザードの周知								
<u>Annual National Workplace Safety and Health Campaign</u>	○	○	○	○	○	○	○	
<u>iWSH Portal</u>	○	○	○	○	○	○	○	
<u>WSH Bulletin</u>	○	○	○	○	○	○	○	
(17) Grading of Safety and Health Management Systems 安全衛生マネジメントシステムの評価、格付け <u>Enhancing Standards of WSH Auditors</u>								
		○	○	○	○	○		
(18) Outreach and Education 能力開発と教育								
<u>Promote Awareness and Adoption of Design for Safety (DfS)</u>								
•International Conference on WSH for Construction Industry		○	○	○	○	○		
•WSH Workshop on Design for Safety of Skyrise Greenery		○	○	○	○	○		
<u>Programme-Based Engagement (ProBE) Plus 2013</u>	○	○	○	○	○	○	○	
<u>Safety Compliance Assistance Visits (SCAV)</u>	○	○	○	○	○	○	○	
<u>Fostering a Trusted Work Injury Compensation (WIC) System</u>								
•WIC Guidebooks for Employees in 7 Languages	○	○	○		○	○	○	
•Dedicated Interpreters	○	○	○		○	○	○	
•Comic Strip	○	○	○		○	○	○	
•Monthly WSH Bulletins	○	○	○	○	○	○	○	
<u>WSH Institute Forum on "The Next WSH Frontier"</u>		○	○	○	○	○		
(19) Driving Improvements through Large Organisations 大企業による改善への推進								
		○	○	○	○	○		
(20) Business Case and Accident Cost Measurement ビジネスケースと事故コストの算定								
<u>Economic Cost of Work-related Injuries and ill-health in Singapore</u>	○	○	○	○	○	○		

戦略的施策4: 国内外の強固なパートナーシップの構築

Table 7.13 Strategy 4: Developing Strong Partnerships Locally and Internationally

ITEMS	towards LABORES	towards LABOR UNIONS	towawrds EMPLOYERS	towards EXECUTIVES	towards GOV. ORGNIZ'S	towards SUPPLYERS	toward TRAINING PROVIDERS	REMARKS
<p>(21) Inter-agency and Inter-industry Collaboration 組織、機関、産業間の連携</p> <p><u>Mrine Industries CEO Roundtable 2013</u></p> <p><u>Construction CEO Roundtable 2013</u></p> <p><u>Collaboration with Migrant Workers Centre to provide Temporary Job Scheme</u></p> <p><u>Collaboration with Hospitals to Proactively Give Out Collaterals to Iniured Workers and Employers</u></p> <p><u>Members of Spring's Technical Committees and Workgroups on WSH Standard Development</u></p>		○	○	○	○			
<p>(22) Regional and International Collaboration 地域および国際協力</p> <p><u>Collaboration with International Powered Access Federation (IPAF)</u></p> <p>7th Asia Pacific IIW International Congress on 8 Jul 2013</p> <p><u>The ASEAN-OSHNET Plus Three Workshop on Development of ASEAN-OSHNET Scorecard and Information Strategies for Occupational Safety and Health, 22-23 Jan 2013</u></p> <p>ASEAN OSHNET Coordinating Board Meeting, 8-9 Apr 2013</p> <p><u>Workshop on Strengthening National Occupational Safety and Health System in Hazardous Work, 14-15 Mar 2013, Hanoi, Vietnam</u></p> <p><u>GHS Training Workshop for OSH and GHS Review Conference for South-East Asia, 20-23 May 2013, Kuala Lumpur, Malaysia</u></p> <p><u>3rd ASEAN Labour Inspection Conference, 2-4 Jul 2013</u></p> <p><u>16th National Conference and Exhibition on Occupational Safety and Health (COSH 2013), 25-27 Aug 2013, Kuala Lumpur, Malaysia</u></p> <p><u>National Safety and Health Conference in Sri Lanka, 9 Oct 2013</u></p> <p><u>ILO Safety and Health Conference, 5-6 Nov 2013, Düsseldorf, Germany</u></p> <p><u>ASEAN-OSHNET Publications</u></p> <p><u>Visitors from Thailand, Hong Kong, Australia, Taiwan, Sri Lanka, China, Malaysia, Korea and ILO</u></p>		○	○	○	○			
<p>(23) International Advisory Panel 国際諮問委員会</p>		○	○	○	○			

7.4. Positioning of OSH Administration on Nation's Policy

- The Occupational Safety and Health Division (OSHD) is a division under the Ministry of Manpower (MoM), that promotes OSH at the national level.



OSHD

OSHD works with employers, employees and all other stakeholders to identify, assess, and manage Workplace Safety and Health risks, so as to eliminate death, injury and ill-health. OSHD is also the WHO Collaboration Centre for Occupational Health, and the ILO CIS National Centre for Singapore.

VISION

A safe and healthy work environment for everyone and a country renowned for best practices in Workplace Safety and Health.

MISSION

To eliminate death, injury and ill-health from all workplaces.

Fig.7.10 Positioning of OSH Administration on Nation's Policy

7.5. OSH-Administration of Central Government

- The Singapore Government has the initiative and unification in OSH-Administration. Accordingly, the Concept of the Central or Regional Government is not necessary in Singapore.
- The Governmental Organization and Structure are to be referred to 「7.7」 .

7.6. OSH-Administration of Regional Governments, and Autonomous-Bodies or Regional-Branches of Central Government

- The Regional Governments and the Regional-Branch Offices of the Government are not existing in Singapore.

7.7. Authorities or Bodies responsible for Workplace Safety and Health

(1) Ministry of Manpower

- Legislation relating to WSH is administered by the Commissioner for Workplace Safety and Health under the Ministry of Manpower (MoM). MoM's mission is to work with Employers and Employees to achieve a globally competitive Workforce and great Workplace, for a cohesive society and a secure economic future for all Singaporeans. Ensuring that their Workplaces are safe and healthy for the Workforce contributes to the overall Mission of creating a great Workplace.

- The Ministry consists of overall 15 Departments, Divisions or Offices.

- The Occupational Safety & Health Division (OSHD) is the division within MoM primarily responsible for ensuring the Safety, Health and Welfare of the Workforce.

- ① Corporate Communications Dept.
- ② Corporate Planning & Management Dept.
- ③ Customer Responsiveness Dept.
- ④ Foreign Manpower Management Div.
- ⑤ Human Resource Dept.
- ⑥ Income Security Policy Div.
- ⑦ Information Systems & Technology Dept.
- ⑧ Labor Regulations & Workplaces Div.
- ⑨ Legal Services Div.
- ⑩ Manpower Planning & Policy Div.
- ⑪ Manpower Research Statistics Dept.
- ⑫ National Human Capital Office
- ⑬ Occupational Safety & Health Div. 勞働安全衛生局**
- ⑭ Work Pass Div.
- ⑮ Workplace Policy & Strategy Div.



(2) Occupational Safety & Health Division



- The Division promotes WSH at the National-level. It works with employers, employees and all other stakeholders, including the Workplace Safety and Health Council, to identify, assess, and manage WSH risks, so as to eliminate Death, Injury and Ill-health.
- The Division is headed by the Commissioner for WSH and is staffed by approximately 270 officers with 160 gazetted inspectors, across four departments performing various functions.



Fig.7.11 Formation of OSHD

① OSH Policy, Information and Corporate Services Department

The Department drives the divisional efforts through sound Policies & Strategic planning, while striving for organization excellence, and analyses and identifies emerging WSH-trends and Risks by leveraging on effective information systems, quality resources and astute business intelligence. The Department also supports the Division in the areas of financial management, registry and day-to-day office administration, as well as ensures continuous improvement in customer responsiveness through monitoring of customer service standards.

② OSH Inspectorate

The Inspectorate focuses on reducing Safety and Health Risks at Workplaces by conducting Inspections and Surveillance of Workplace and enforcing the Law when necessary, to ensure that workplaces maintain an acceptable level of safety and health standard. The inspectorate also investigates accidents and shares the lessons learnt from these accidents with the Industry.

③ OSH Specialists Department

The Department provides specialist support in the development of WSH Standards and Best Practices, as well as the Investigation into complex Accidents and Occupational-diseases. The Department conducts technical and scientific research, develops and implements strategies and targeted programs for specific WSH-hazards and Industries. The Department also collaborates with international organizations and national institutes in projects, information exchange, visits and training.

④ Work Injury Compensation Department

This Department administers the Work Injury Compensation System to assist injured employees and Dependents of deceased employees in claiming Work Injury Compensation. It also administers the Incident Reporting system for workplace accident, dangerous occurrence and occupational-disease.

(3) Workplace Safety and Health Council

- To drive strong industry ownership of WSH outcomes, the WSH Advisory Committee (WSHAC) was formed in Sep 2005, comprising 14 eminent individuals, with wide industry-representation, appointed by the Minister for Manpower.
- The role of the WSHAC was to advise MoM on WSH standards, promotion and training, as well as address the unique challenges of key industry-sectors. In Nov 2006, the International



VISION
A safe healthy Workplace for everyone; and a country renowned for best practices in WSH.

MISSON
To lead a mindset that all incidents are preventable and strengthen capabilities to protect health and lives at work.

- Advisory Panel on WSH recommended an expanded scope for the WSHAC. To do this, the WSHAC would have to be evolved into a full-fledged Council with executive functions. MoM accepted the recommendation and announced in Oct, 2007 that the WSH Council would be formed by Apr, 2008.
- On 1 Apr, 2008, the WSH Council was formed to take on executive powers to spearhead WSH initiatives, through the enactment of the 「 WSH (Amendment) Act-2008」 . The WSH Council comprises 18 leaders from the key industry-sectors (such as construction, marine, manufacturing, petrochemical, and logistics), the Government, Unions and Professionals from the legal, insurance and academic fields.
 - The WSH Council's main functions are to:
 - Build the Capabilities of industry to better manage WSH
 - Promote Safety and Health at Work and recognize companies with good WSH records
 - Set acceptable WSH-practices

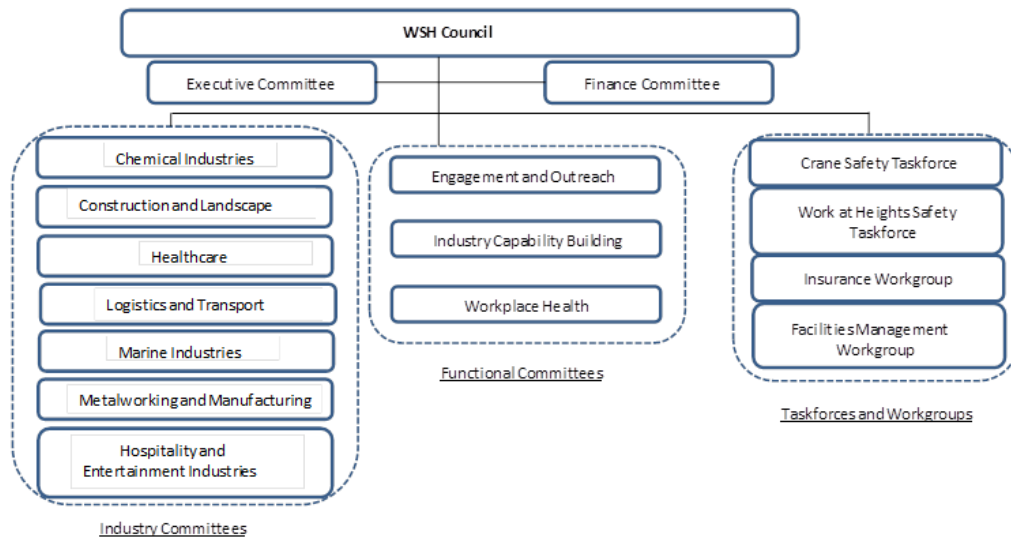


Fig.7.12 Seven Industries Three Functional-Committees and Four Taskforces under the WSH Council

(4) Workplace Safety and Health Institute

- The WSH Institute was set up in Apr, 2011 as part of Singapore’s 「WSH-2018 Strategy」 to strengthen Singapore’s capabilities in safeguarding the safety and health of persons at work, and put them on par with global leaders. The WSH Institute will help MoM and WSH Council recalibrate and ensure policies and programs continue to stay relevant and effective.



VISION
A Leading Institute for WSH Knowledge and Innovations.

MISSION
Enhancing WSH through Knowledge, Innovations and Solutions

- Businesses in Singapore can look to the WSH Institute for strategies and solutions to help them address WSH issues. In addition, the Institute will also work with the WSH Council to equip business-leaders and WSH-professionals with the competencies to better manage safety and health at their workplaces.
- To realize their vision of a Leading-Institute for WSH Knowledge and Innovation, and achieve the corresponding strategic outcomes, the Institute will adopt the following three key Strategies:
 - Informing WSH policies and strategies;
 - Creating WSH solutions for businesses, and
 - Transforming and nurturing capabilities for leaders and professionals

KEY AREAS OF WORK

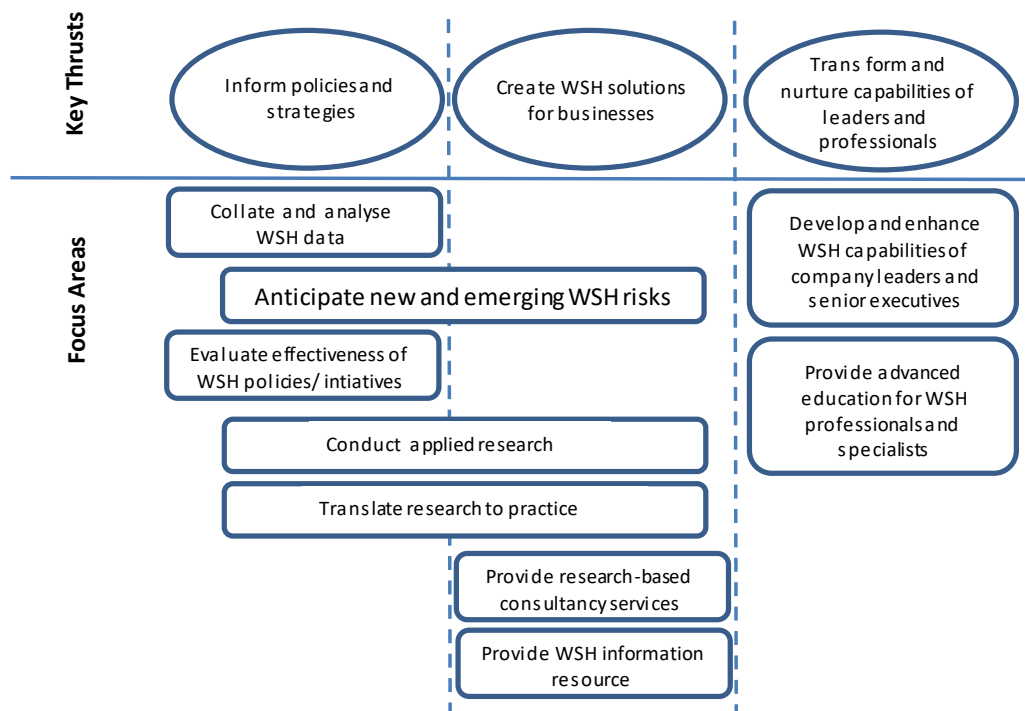


Fig.7.13 WSH Institute's Key Areas of Work

- With effect from Apr, 2012, WSH Institute came under the purview of the WSH Council. A nine member Governing Board, appointed by the WSH Council, was formed to provide governance to the WSH Institute. It consists of members from the industry, the labor movement, government and institutions of higher learning. The board will ensure that the Institute's work is relevant to the industry, government and workers, tapping on expertise distributed across organizations with the capabilities in research, education and training. The institute also taps on the advice of MoM's International Advisory Panel (IAP), which comprises WSH experts from countries with similar but more mature set-ups. These include Germany, Korea, the United Kingdom and the United States.

(5) Industry Associations and Professional Bodies

- Besides the tripartite partners, various industry associations and professional-bodies are regularly consulted in the Formulation of Policies or Legislation. All proposed legislations are also posted on the internet via an e-consultation portal to solicit industry and public feedback.
- These associations and professional-bodies are also regularly involved in co-organizing various outreach programs, seminars and workshops for the industry.

(6) Tripartite Coordination and Collaboration

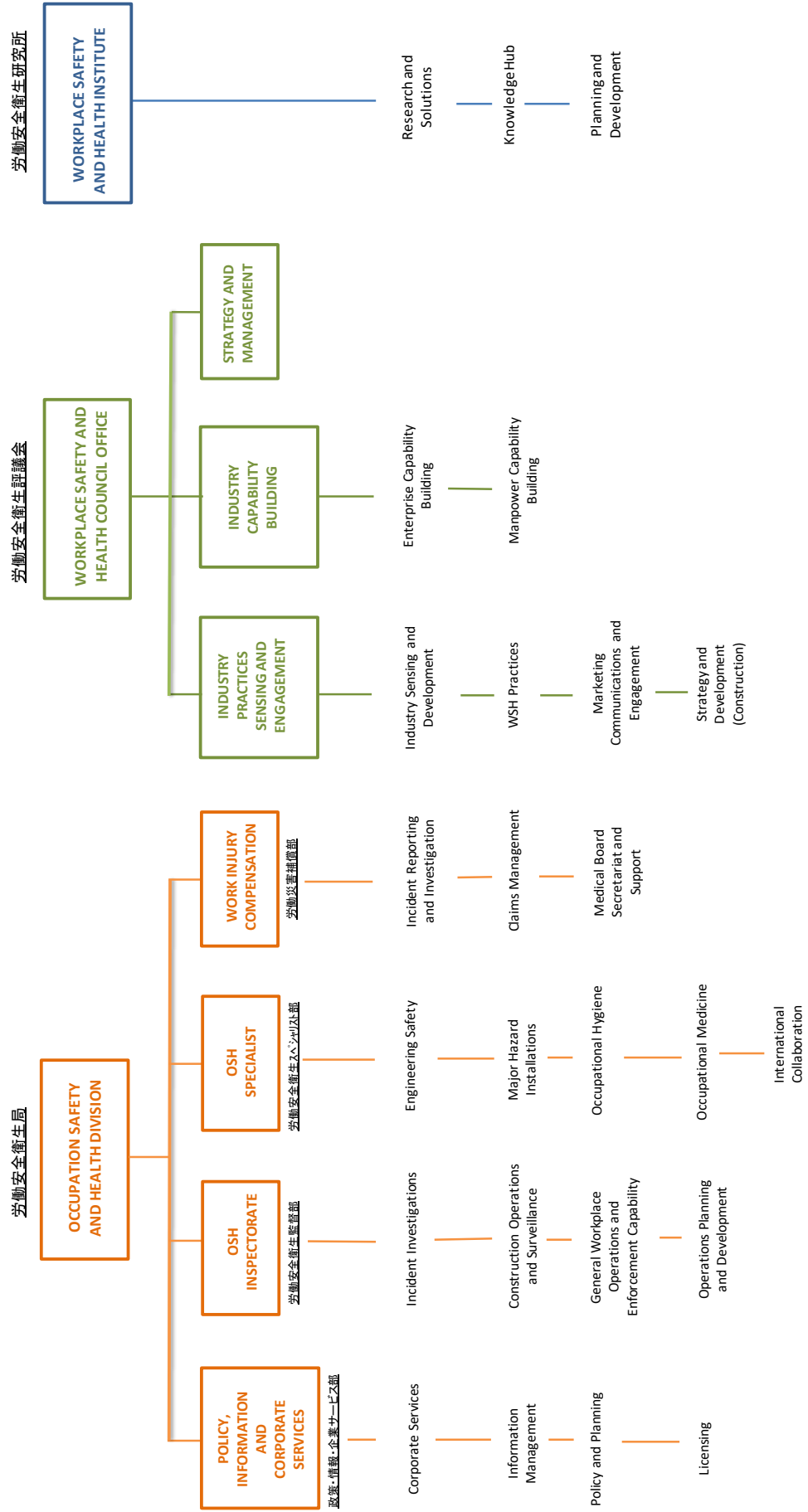


Fig.7.14 Tripartite Coordination and Collaboration

- A unique, co-operative Tripartite-mechanism amongst Workers, Employers and the Government is long practiced in Singapore. This approach has been successful in cultivating Constructive Workplace Relations in Singapore. It has helped companies and the economy to grow, as well as create jobs for the Workforce.
- This mechanism has also proven useful in advancing WSH in Singapore. The tripartite-partnership between MoM, together with Singapore National Employers Federation (SNEF) and National Trades Union Congress (NTUC), has been instrumental in bringing about close Consultation and Communication avenues between the Government and representatives of Employers and Workforce on WSH issues. The formation of the WSH Council is expected to foster even greater Coordination and Collaboration between the Regulator and the Industry-stakeholders.

Fig 7.15 Formation of OSHD and relevant Governmental Organizations

労働安全衛生担当部局および機関の組織構造



7.8. OSH Activities by Labor Union and /or Employer's Association

- A unique, cooperative and harmonized Tripartite-mechanism amongst Workers, Employers and the positive Government (Tripartism) is long practiced in Singapore. This has helped the Economy to favorably grow, as well as created new Jobs for the workforce.
- NGOs at present need not to positively be involved.

7.9. Activities by Labor Unions and Employers' Associations

(1) Labor-management Associations

a Nos of Union-members and rate of Organization

Table 7.14 Evolution of Labor Union Organization

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Nos of Unions	71	70	68	68	68	69	68	65	65	65	65
Nos of Members	338,311	389,676	417,166	443,893	450,004	463,384	495,048	517,197	526,089	549,878	588,014
Estimated rate of Organization %	15.6	18.1	19.5	20.1	19.4	18.6	18.1	17.5	17.6	17.7	18.2

(Source: *Singapore Yearbook of Manpower Statistics*, MoM, Singapore)

(Note: Rate of organization = Nos of union members/Nos of employees x 100)

- The nos of Labor Unions, which was 65 in 2011, has recently been on the decrease, in particular among unions with 1,000 or less members. The nos of Union-Members, which was about 0.59 million in 2011 has been on the increase since 2001. The estimated rate of organization, has steadily increased these years, which was 18.2 % in 2011.

b Labor Organizations

- The 「National Trades Union Congress (NTUC)」, established in 1964, is the only one national center. The purpose of the NTUC is to improve Workers' Welfare and Status, so that they can work Life-long and build up a system of Labor-movement that actively and responsibly cares for Workers.

c Employers' Organizations

- The 「Singapore National Employers Federation (SNEF)」 was established in 1980 as an employers' association. The purpose of SNEF is to sustain the Harmony among Industries through mutual cooperation, improve manpower's competitiveness as well as workers' quality of life, and help Employers, Workers, Consumers, and the Government fulfil their respective duties.

(2) Work Skills Development

- The Singapore 「Workforce Skills Development Agency (WSDA)」 was established in September, 2003 to develop Workers' Skills, promote Employment by enterprises, improve Competitiveness and so forth, through continuing Education and Training, Counselling and Job-hunting assistance. The WSDA is the country's main organization that plans and implements the Vocational training-policies in positive and close coordination with industries and MoM's other agencies. To improve workers' employability and competitiveness and develop high-level manpower resources, the Agency reaches out to young people to duly enter the labor-force through lecturers and career counsellors in professional schools and vocational-training providers.

a Continuing Education and Training (CET)

- To improve workers' QOL and productivity, MoM develops and implements basic-plans that help workers learn industry-related Skills and keep up with Industrial-development.
- The ongoing 「CET」 program established the plans in 2008 to prepare Singapore's labor population and industries for two major transitions:
 - Help one half of Singaporeans (36% in 2007) get Diplomas by 2020.
 - Help Singaporeans get ready for emerging and growing industries, that is., prepare them to best exploit Job opportunities offered by new growth Industries, with a view to anticipating new Jobs, switching Careers, and learning new Skills.

b Workforce Skills Qualifications (WSQ)

- The 「WSQ」 is a qualification certification-system, run by the WSDA aimed to maintain and improve workers' Employability by training, developing, evaluating, and certifying Skills required for workers at CET centers. When they prove to be competent in given fields, workers are granted National-certificates.
- From simple certificates to Graduate Diplomas, there are seven levels of Certification. After getting certificates and becoming an engineer, they can seek getting higher level certifications to become managers. The Training-courses, subject to certifications, are divided into two categories, one being basic-skill courses for skills, knowledge, and attitudes expected in all industries, and the other being industrial and vocational courses for such industries as aerospace, local community services, finance, restaurateur, IT, landscape gardening, precision, retail, security, paid services, tourism, training, and so forth.

c Employability Skills System (ESS)

- Run by the WSDA in close cooperation with Employers and Industrial-associations, the 「ESS」 is a system that helps workers get through basic skills common to all industries, such as reading, writing, calculation, and 「IT skills」, that are vital in job hunting to improve workers' Employability.

8. Current situation of Singapore's Occupational Safety and Health administration and main Issues to be settled

8.1 Site Inspection and Reporting systems

(1) Official Inspection to Workplaces

a Administrative Inspection

- Under the 「Workplace Safety and Health Act (WSHA)」, OSHD Inspectorate are authorized to Visit, Oversee, and Inspect Workplaces anytime, to ensure occupational safety and health management at workplaces.
- The Commissioner of OSHD may order to investigate Accidents and Disasters at Workplaces. In the process of the investigation, OSHD Inspectors are able to interview the parties concerned, on the accidents and disasters;
- The Commissioner may temporarily suspend the Validity of Permits, whenever deemed necessary. Further, he may issue Correction-orders, that demand the Employers to remove the Risks at Workplaces and ensure the safe Operating-environment, or issue 「Work suspension-orders」 that require the Employers to suspend the specific operations until measures are taken to ensure Safe-execution of work.
- For each count of legal violation, the Commissioner levies a 「Settlement-fine」 of S\$ 5, 000 or less, determined at his own discretion. In addition, he is able to charge the Transgressor for Violation of the WSHA.

b Who inspects

- OSHD Inspectorate

c Inspection-Reports, Correctional-fines, and Response to Inspector's comments

- Inspections of workplaces and compliance with WSHA, for instance, Work at heights, Crane operations, Noise, Vibration, Dust, Mosquitos and so forth, are implemented. Employers must take necessary measures to respond to their comments and directions.

(2) Obligation to report Work Injuries Accidents and Disasters to the Administrative Office

a Which types of Accidents and Disasters to be reported

- All Work Accidents and Disasters must be reported to the Commissioner of OSHD within 10 days of the occurrence in accordance with the Accident Reporting-Rules defined by the MoM.
- Types of Accidents to be reported to OSHD, MoM
 - Fatal accidents
 - Accidents, causing Disability of 4 days or more
 - Accidents, causing Injury requiring 24 hours or more to Hospital
 - Major Accidents, involving Amputation of Limb or Deaths, must be reported to the Police-station and the chief Factory-supervisor, too
- Major Accidents, not involving Injury or Death, which are classified as Dangerous-situations, must

also be reported, for instance, Damage of power-driven Rotating-containers, Collapses of Cranes or Derricks, Explosions, Fires, etc. Reporting must be noticed to Insurance-companies, too.

b When to report/ Deadline

- Within 10 days of occurrence

c Whom to report to

- MoM

d Who to compulsorily report

- Who to report : Employer, Occupier, or Principals
- Reporting-format: prescribed by the MoM's Accident Reporting-rules (16 pages for one accident), available at OSHD, MoM.
- Having failed to report an accident, the Employer, Occupier, or Principal is in Violation of the Article 12 of WICA and, if guilty, is liable to a Fine of S\$ 1,000 or less.

(3) Investigation by the Inspectorate on Workplace Accident or Disasters

a. What to be investigated

Based on Accident Reports, MoM conducts investigation to:

- Identify causes and situations, that might lead to even more Serious Accidents;
- Analyze accidents, identify hazardous-areas, and find preventive or corrective Measures that could prevent Similar Accidents;
- Estimate promptly the Compensation, payable to Injured-workers, or the Family of the deceased;

b. Who to investigate

- MoM Personnel in charge

(4) Penalty

- The Fine, once in a while, amounts to roughly J-Yen tens-millions per accident.
- The nos of Site-inspection implemented is 16,000 in 2015, that is, 1,300 every month. It is unknown which sector in particular is inspected.
- Currently, 25 companies are held liable under the 「Offenders, convicted under Safety and Health Act」, 2016. Their Names are officially announced, and call orders to pay Fines to the prescribed official accounts;
- The nos of 「Stop-Work Orders」, issued to Employers to stop Works, in order to prevent accidents, comes up to 100 or so every year. The Names of these companies are also announced on the web.
- Inspectors check and watch over whether Employers, Occupiers or Principals have taken proper measures in response to their corrective advices. If no Correction, they are placed 「Under Surveillance」. Roughly 30companies are made victims of every year.

- While Tender-evaluation, 「Demerit Points」 Benchmark Index, which is one of the Safety-Performance Records, is officially announced too.
- Concerning 「Free application *Snap MoM* / Report-Issues」, Photos are automatically sent to MoM, and official call orders are given to pay Fines;
- Because of the insufficient nos of the Inspectorate, these IT-systems are involving Community-residents.
- Roughly 40% of the increase of the casualties in the 2015 to 2016 period was at Construction-sites, presumably due to the contractors, taking insufficient safety-measures, so as to cut Costs.
- The causes of accidents are often said due to the Inattention to Safety-measures, including unworn safety helmets, safety belts, or other personal protective equipment as well as machines operated by unqualified workers.
- Some companies, violating the WSHA inevitably, anticipate the Prospective Payment of Fines, and allocate Affordable-budgets in Advance, which is especially true among Small and Medium Contractors. The companies might keep the prospective fines of under S\$ ten to twenty thousands, but, if the satisfactory safety-measures are definitely taken, it might Cost up to roughly 15% of the Tender-price, which would make impossible for the company to win the Tender.

Table 8.1 List of Offenders Convicted under Workplace Safety and Health Act, 2016



Note: (for instance)

1. The information provided in the listing only pertains to fatal workplace accidents.

2. The listing provided is for awareness purposes only. It is for restricted use in the context of this document and should not be further reproduced without permission. In writing, the information herein may not be complete at the time of publishing and hence should not be used as a formal reference for legal action.

S/N	Name of Offender	Status of Offender	Date of Sentence	No. of Charges Convicted	Text of Offences Correspondence under the WSSA Act	Fines Imposed
1	Curech Waste Services Pte Ltd	Employer	30-Jan-16	1	Section 12(1) Workplace Safety and Health Act (Chapter 354A) It shall be the duty of every employer, to take, so far as is reasonably practicable, such measures as are necessary to ensure the safety and health of his employees at work.	\$125,000
2	Singapore River Explorer Pte. Ltd.	Employee	27-Jan-16	1	Section 12(1) Workplace Safety and Health Act (Chapter 354A) It shall be the duty of every employer, to take, so far as is reasonably practicable, such measures as are necessary to ensure the safety and health of his employees at work.	\$60,000
3	Sheep's Vibe Engineering Pte Ltd	Employer	4-Feb-16	1	Section 12(1) Workplace Safety and Health Act (Chapter 354A) It shall be the duty of every employer, to take, so far as is reasonably practicable, such measures as are necessary to ensure the safety and health of his employees at work.	\$176,000
4	CHHO Jangoh Construction Group Corporation	Principal	4-Mar-16	1	Section 14(2)(a) Workplace Safety and Health Act (Chapter 354A) It shall be the duty of every principal to take, so far as is reasonably practicable, such measures as are necessary to ensure the safety and health of his employees at work.	\$116,000
5	Meng Guan Landscapes & Construction Pte Ltd	Employer	23-Mar-16	1	Section 12(1) Workplace Safety and Health Act (Chapter 354A) It shall be the duty of every employer, to take, so far as is reasonably practicable, such measures as are necessary to ensure the safety and health of his employees at work.	\$50,000
6	Win Chang Construction Pte Ltd	Employer	29-Mar-16	1	Section 12(1) Workplace Safety and Health Act (Chapter 354A) It shall be the duty of every employer, to take, so far as is reasonably practicable, such measures as are necessary to ensure the safety and health of his employees at work.	\$165,000
7	Tan Tian Kok	Self Proprietor	26-Mar-16	1	Regulation 25(3)(a) Workplace Safety and Health (Risk Management) Regulations Every employer, self-employed person and principal shall establish a record of any risk assessment conducted under regulation 21(1), and any measure or safe work procedure implemented under regulation 4(2).	\$6,000
8	Huay Construction Pte. Ltd.	Employer	10-Apr-16	1	Section 12(1) Workplace Safety and Health Act (Chapter 354A) It shall be the duty of every employer, to take, so far as is reasonably practicable, such measures as are necessary to ensure the safety and health of his employees at work.	\$150,000
9	Sing Wah Enterprise Pte. Ltd.	Employer	27-Apr-16	1	Section 12(1) Workplace Safety and Health Act (Chapter 354A) It shall be the duty of every employer, to take, so far as is reasonably practicable, such measures as are necessary to ensure the safety and health of his employees at work.	\$190,000
10	Century Technology Pte Ltd	Principal	4-May-16	1	Section 14A(1)(b) Workplace Safety and Health Act (Chapter 354A) It shall be the duty of every principal to take, so far as is reasonably practicable, such measures as are necessary to ensure that any equipment engaged by the principal has taken adequate safety and health measures in respect of any equipment used by the contractor.	\$40,000
11	Yen San Metals Pte Ltd	Employer	24-May-16	1	Section 12(1) Workplace Safety and Health Act (Chapter 354A) It shall be the duty of every employer, to take, so far as is reasonably practicable, such measures as are necessary to ensure the safety and health of his employees at work.	\$370,000
12	Temporal Engineering Pte. Ltd	Principal	26-May-16	1	Section 14A(1) Workplace Safety and Health Act (Chapter 354A) It shall be the duty of every principal to take, so far as is reasonably practicable, such measures as are necessary to ensure that any contractor engaged by the principal has taken adequate safety and health measures in respect of any equipment used by the contractor.	\$20,000

Table 8.2 List of Factories and Work-sites issued with Stop Work Orders (SWO)
in the period 01-Jan-16 to 31-Oct-16 (for instance)



Note:

1. The information provided in this listing is accurate as at 31-Oct-16.
2. The listing provided is for awareness purposes only. It is for restricted use in the context of this document and should not be further reproduced without permission, in writing. The information herein may not be accurate at the time of publishing and hence should not be used as a formal reference for legal arbitration.

S/N	Name of Company	Location of Factory/ Work-site	Type of SWO Issued	SWO status	Date of Issuance	Date of Lifting	Remarks
1	M+W SINGAPORE PTE. LTD.	MK13-0482BK PT AT 1 NORTH COAST DRIVE (OFF ATTAP VALLEY ROAD AND ADMIRALTY ROAD WEST)	Partial	Lifted	04-Jan-16	29-Jan-16	
2	AUTHENTIC BUILDER PTE. LTD.	MP21-02418A AT EDGEDALE PLAINS (PUNGGOL PLANNING AREA)	Full	Lifted	05-Jan-16	13-Jan-16	
3	STAR READY-MIX PTE. LTD.	22 TUAS SOUTH BOULEVARD SINGAPORE 637081	Partial	Lifted	25-Jan-16	01-Mar-16	
4	GUAN HO CONSTRUCTION CO (PTE) LTD	59 PUNGGOL WALK PUNGGOL GREEN PRIMARY SCHOOL SINGAPORE 826772	Partial	Lifted	29-Jan-16	10-Feb-16	
5	QINGDAO CONSTRUCTION (SINGAPORE) PTE LTD	MK29-99972L, MK29-99971X, MK29-99970N, MK29-09023X PT, MK29-09024L PT PART A: BUILDING WORKS AT TAMPINES NS C2A & PARK (TOTAL: 1,216 DWELLING UNITS) AT TAMPINES NORTH DR 1/ST 61/AVE 6; AND PART B: CONTINGENCY WORKS - CONTRACT NO: D134575	Full	Lifted	01-Feb-16	11-Mar-16	
6	JURONG SHIPYARD PTE LTD	29 TANJONG KLING ROAD SINGAPORE 625054	Partial	Lifted	03-Feb-16	11-Mar-16	
7	TAT HIN BUILDERS PTE LTD	MK11-03138P AT CHOA CHU KANG AVE 4	Full	Lifted	04-Feb-16	18-Feb-16	
8	INTERPRO CONSTRUCTION PTE LTD	1 SURIN AVENUE ONE SURIN SINGAPORE 635578	Full	Lifted	06-Feb-16	23-Feb-16	
9	STALLION DEVELOPMENT PTE LTD	11 BLACKMORE DRIVE METHODIST GIRLS SCHOOL (PRIMARY) SINGAPORE 599988	Full	Lifted	11-Feb-16	22-Feb-16	
10	GREAT EARTH CONSTRUCTION PTE LTD	11 MANDALAY ROAD SINGAPORE 308232	Full	Lifted	17-Feb-16	15-Mar-16	
11	LIAD NING CONSTRUCTION PTE LTD	52 CROWHURST DRIVE SERANGGON GARDEN ESTATE SINGAPORE 557931	Full	Lifted	25-Feb-16	18-Mar-16	
12	SUNRAY WOODCRAFT CONSTRUCTION PTE LTD	20 CECIL STREET EQUITY PLAZA SINGAPORE 049765	Full	Lifted	02-Mar-16	27-Apr-16	
13	DABA PTE LTD	5 JALAN SAMULUN SINGAPORE 629122	Partial	Lifted	04-Mar-16	10-Jun-16	
14	SAMSUNG C&T CORPORATION COLD STORAGE SINGAPORE (1993) PTE LTD	LOT: 06876K MK: 18 03 PECK SEAH STREET / CHOON GUAN STREET	Partial	Lifted	04-Mar-16	23-Mar-16	
15		1 BUROH LANE #01-01 SINGAPORE 618292	Full	Lifted	15-Mar-16	08-Apr-16	
16	FAIRWAY INDUSTRIES PTE. LTD.	5 CHIA PING ROAD SINGAPORE 619570	Partial	Lifted	16-Mar-16	23-Mar-16	
17	RIBAR INDUSTRIES PTE. LTD.	5 CHIA PING ROAD, SINGAPORE 619570	Partial	Lifted	16-Mar-16	19-Apr-16	
18	CONINT PTE. LTD.	63 TAMPINES LINK GOLDEN PAGODA BUDDHIST TEMPLE SINGAPORE 529740	Full	Lifted	17-Mar-16	07-Apr-16	
19	KIAN HIAP CONSTRUCTION PTE LTD	MK27-10210V PT AT CHAI CHEE STREET	Full	Lifted	21-Mar-16	04-Apr-16	
20	ABM CONSTRUCTION PTE. LTD.	33 LORONG 32 GEYLANG LOFT 33 SINGAPORE 398293	Full	Lifted	21-Mar-16	08-Apr-16	
21	KIM HOCK CORPORATION PTE. LTD.	12 BAKRA ROAD SINGAPORE 827892	Partial	Lifted	21-Mar-16	28-Apr-16	
22	CHAN RONG FEN BUILDING CONSTRUCTION PTE LTD	500 COVER ROAD SINGAPORE POLYTECHNIC SINGAPORE 139651	Partial	Lifted	22-Mar-16	28-Apr-16	
23	WCS ENGINEERING CONSTRUCTION PTE. LTD.	MK10-04284T AT JALAN JURONG KECHIL, THE HILLFORD	Full	Lifted	23-Mar-16	14-Apr-16	
24	ENG SENG LEE CONSTRUCTION COMPANY PRIVATE LIMITED	LOT: 02261K MK: 21 AT PUNGGOL FIELD WALK/PUNGGOL FIELD/PUNGGOL EAST (FLO RESIDENCE)	Partial	Lifted	04-Apr-16	03-May-16	
25	PRECISE DEVELOPMENT PTE. LTD.	47 JALAN BURCH DISTRI WAREHOUSES SINGAPORE 619491	Partial	Lifted	02-Apr-16	19-Apr-16	
26	PRECISE DEVELOPMENT PTE. LTD.	20 PENJURU LANE SINGAPORE 609193	Partial	Lifted	04-Apr-16	27-Apr-16	
27	YONGNAM ENGINEERING & CONSTRUCTION (PRIVATE) LIMITED	5 JALAN KILANG THE MILL SINGAPORE 150405	Full	Lifted	04-Apr-16	21-Apr-16	
28	YONGNAM ENGINEERING & CONSTRUCTION (PRIVATE) LIMITED	MK13-01546M, MK13-01546C, MK13-01544L, MK13-01543X, MK13-01542N FOR PROPOSED JTC FOOD HUB AT SENOKO DRIVE/SENOKO LOOP (CONTRACT NO.: JTC C17702014)	Partial	Lifted	04-Apr-16	13-Apr-16	

Table 8.3 List of Companies under Business Under Surveillance (BUS) Program (for instance)

**Note:**

1. The information provided in this listing is accurate as at **14 November 2016**.
2. The listing will be updated on a weekly basis only when there is change.
3. The listing provided is for awareness purposes only. It is for restricted use in the context of this document and should not be further reproduced without permission, in writing. The information herein may not be accurate at the time of publishing and hence should not be used as a formal reference for legal arbitration.

List of Companies under Business Under Surveillance (BUS) Programme

S/n	ACRA No	Name of Company
1	200411918W	Authentic Builder Pte Ltd
2	199507356H	Beng Hwa Builders Pte Ltd
3	200208348W	Bravo Building Construction Pte Ltd
4	199201093N	China Construction (South Pacific) Development Co. Pte. Ltd.
5	T11FC0111L	China Railway 11 Bureau Group Corporation (Singapore Branch)
6	200503189Z	Cubic Deco Pte Ltd
7	198302489Z	Erecon Construction Co Pte Ltd
8	199703039N	Grandbuild Construction Pte Ltd
9	198101172D	Gretearth Construction Pte Ltd
10	53333771B	Highway – Avenue Consortium
11	199900724G	Hong Shin Builders Pte Ltd
12	200414934H	HPC Builders Pte. Ltd.
13	53239805W	Hyundai-GS Joint Venture
14	199301841H	Interpro Construction Pte Ltd
15	200104490Z	Jurong Primewide Pte Ltd
16	198901665E	Kian Hiap Construction Pte Ltd
17	200304939C	Kim Hock Corporation Pte Ltd
18	201212754K	Kingsford Construction Pte Ltd
19	200208255D	Komex Building Construction Pte Ltd
20	200715404E	Maple Builders Pte Ltd
21	198302845D	Precise Development Pte Ltd
22	199905552R	Qingdao Construction (Singapore) Pte Ltd
23	200603267K	SCT Construction Pte Ltd
24	199204944C	SH Design & Build Pte Ltd
25	197600979M	Soil-Build (Pte). Ltd.
26	198703016K	Sunray Woodcraft Construction Pte Ltd
27	200008552G	Tat Hin Builders Pte Ltd
28	196400301R	Tiong Seng Contractors (Private) Limited
29	199306168K	TKT Development Pte Ltd
30	199204686K	Transbuild Engineering Pte Ltd
31	198401377W	V3 Construction Pte Ltd
32	200200838G	V-Tech Construction Pte Ltd
33	198802616E	Wee Hur Construction Pte Ltd
34	200606116K	Wei Kiat Construction Pte Ltd
35	197901827Z	Whye Wah Development & Construction Pte Ltd
36	201425865D	Xinyuan Construction Pte Ltd
37	200400937W	Yong Xing Construction Pte Ltd

Table 8.4 List of Contractors with Demerit Points (for instance)

Note:

1. The information provided in this listing is accurate as at 14 Nov-2016.
2. The listing provided is for awareness purposes only. It is for restricted use in the context of this document and should not be further reproduced without permission, in writing. The information herein may not be complete at the time of publishing and hence should not be used as a formal reference for legal arbitration.



S/No.	UEN No.	Name of Contractor	Demerit Points accumulated by Contractor	Blacklist Period
Phase 2 (50 ≤ Points Accumulated ≤ 74)				
1	196400301R	TIONG SENG CONTRACTORS (PRIVATE) LIMITED	57	16-Sep-16 - 06-Apr-17
Phase 1 (25 ≤ Points Accumulated ≤ 49)				
1	200411918W	AUTHENTIC BUILDER PTE. LTD.	46	07-Jan-16 - 06-Apr-16
2	193507356H	BENG HWA BUILDERS PTE LTD	38	29-Oct-15 - 27-Mar-16
3	197500967Z	DEENN ENGINEERING PTE LTD	31	18-Apr-16 - 18-Jul-16
4	199301841H	INTERPRO CONSTRUCTION PTE LTD	29	07-Mar-16 - 06-Jun-16
5	200104480Z	JURONG PRIMEWIDE PTE LTD	34	28-Jul-16 - 27-Oct-16
6	203304939C	KIM HOCK CORPORATION PTE. LTD.	25	18-May-16 - 17-Aug-16
7	196302845D	PRECISE DEVELOPMENT PTE. LTD.	30	07-Apr-16 - 06-Jul-16
8	203503257K	SGT CONSTRUCTION PTE. LTD.	26	04-Aug-16 - 03-Nov-16
9	199603619N	SEIHO SIGN ENGINEERING PTE. LTD.	35	28-Jul-16 - 27-Oct-16
10	199403708R	SEMBCORP DESIGN AND CONSTRUCTION PTE. LTD.	30	24-Oct-16 - 23-Jan-17
11	199204944C	SH DESIGN & BUILD PTE. LTD.	45	25-Sep-15 - 24-Dec-15
12	199305168K	TKT DEVELOPMENT PTE. LTD.	27	28-Jul-16 - 27-Oct-16
13	199204680K	TRANSBUILD ENGINEERING PTE LTD	30	12-Jul-16 - 11-Oct-16
14	198401377W	V3 CONSTRUCTION PTE. LTD.	27	28-Jun-16 - 27-Sep-16
15	201016157N	IWCS ENGINEERING CONSTRUCTION PTE. LTD.	25	07-Apr-16 - 06-Jul-16
16	196609104W	ZHEN HUA (SINGAPORE) ENGINEERING PTE. LTD.	26	11-Feb-16 - 10-May-16
Phase 0 (Accumulated <25 points)				
1	200908944G	A & B SCAFFOLD ENGINEERING PTE. LTD.	1	-
2	201420915W	A N R CONSTRUCTION & ENGINEERING PTE. LTD.	15	-
3	200720423R	ARM CONSTRUCTION PTE. LTD.	10	-
4	198903372N	ACES SYSTEM DEVELOPMENT PTE LTD	8	-
5	200600411Z	ACME ASSOCIATES PTE. LTD.	12	-
6	201213362Z	AJW CONSTRUCTION PTE. LTD.	13	-
7	200617665K	ASIA DEVELOPMENT PTE. LTD.	1	-
8	200004826K	ATC PAINTING & TRADING PTE LTD	5	-
9	199101960W	B19 TECHNOLOGIES PTE. LTD.	1	-
10	200618256G	BESTBUILT CONSTRUCTION PTE. LTD.	10	-
11	198102357W	BETHNAL CONSTRUCTION PTE. LTD.	1	-
12	200208346W	BRAVO BUILDING CONSTRUCTION PTE. LTD.	13	-
13	201219535H	BRICKFORD CONSTRUCTION PTE. LTD.	12	-
14	200401491M	BUILDERS ALLIANCE PTE. LTD.	12	-
15	199707906Z	BUN SZE KAR GENERAL CONTRACTOR PTE LTD	2	-
16	200010796W	CHAN FONG FEN BUILDING CONSTRUCTION PTE LTD	5	-
17	199801369G	CHANG HUA CONSTRUCTION PTE LTD	9	-
18	201225432G	CHENG JI BUILDER PTE. LTD.	11	-
19	199201093N	CHINA CONSTRUCTION (SOUTH PACIFIC) DEVELOPMENT CO. PTE. LTD.	18	-
20	T06FC6884E	CHINA JINGYE ENGINEERING CORPORATION LIMITED (SINGAPORE BRANCH)	2	-
21	T11FC1111L	CHINA RAILWAY 11 BUREAU GROUP CORPORATION (SINGAPORE BRANCH)	13	-
22	201427250C	CHINA RAILWAY NO. 8 - WSHC JV PTE. LTD.	22	-
23	198800864H	CHIU TENG ENTERPRISES PTE LTD	20	-
24	200823975R	CHONG SEN CONSTRUCTION PTE. LTD.	1	-
25	199600584W	CHUAN LIM CONSTRUCTION PTE LTD	2	-
26	200416739G	CKR CONTRACT SERVICES PTE. LTD.	1	-
27	198202913D	CMC CONSTRUCTION PTE. LTD.	1	-
28	199904091M	CONINT PTE. LTD.	15	-
29	201500772N	CONSTRUCTECH PTE. LTD.	5	-
30	201004622D	CONSTRUCTION PROFESSIONAL RESOURCES PTE. LTD.	3	-
31	200603189Z	CUBIC DECO PTE. LTD.	13	-
32	20000574H	CYBER BUILDERS PTE. LTD.	2	-
33	200008850E	DABA PTE LTD	5	-
34	T10FC0065B	DA-ON CONSTRUCTION CO., LTD. (SINGAPORE BRANCH)	3	-
35	198700687H	DAIYA ENGINEERING & CONSTRUCTION PTE LTD	7	-
36	201414912G	DAL BUILDERS PTE. LTD.	10	-
37	201428052W	DIAP-DAELM JOINT VENTURE PTE. LTD.	8	-
38	198702588W	DJ BUILDERS & CONTRACTORS PTE LTD	22	-
39	199203213N	DRAGAGES SINGAPORE PTE LTD	3	-
40	201022368Z	E C BUILDERS PTE. LTD.	16	-
41	201002118K	EAST ASIA ENGINEERING & CONSTRUCTION PTE. LTD.	12	-
42	530471921S	EDIPHD SERVICES	7	-
43	197301917Z	ENG SENG LEE CONSTRUCTION COMPANY PRIVATE LIMITED	5	-
44	199900732C	ENGINEERING CONSTRUCTION (PRIVATE) LIMITED	1	-
45	198302489Z	ERECON CONSTRUCTION CO PTE LTD	15	-
46	199906747D	EURO BUILDER AND ELECTRICAL PTE. LTD.	14	-
47	198802905E	EVER SAN CONSTRUCTION PTE LTD	10	-
48	200003569N	EVERGREEN ENGINEERING & CONSTRUCTION PTE LTD	2	-
49	199700923W	EVERRIDGE CONSTRUCTION PTE LTD	2	-
50	198300922W	EXCLUSIVE DESIGN CONSTRUCTION PTE LTD	15	-
51	198803243M	FENG MING CONSTRUCTION PTE LTD	5	-
52	200603038M	FONG YUE DEVELOPMENT PTE. LTD.	15	-
53	200005055N	FONG AH WENG CONSTRUCTION PTE LTD	5	-

Updated on 16/11/2016

Table 8.5 Quick Guide on Submitting Incident Report

Getting Started

This is a guide for users to familiarize themselves with the information required before submitting the incident report on a work-related accident. Before submission, please get ready the relevant information to complete the online form. It will take about 15 minutes to complete the report. You will be required to furnish the following details:

- About you and your organisation
- About the accident (i.e. When, where and how did the accident happen?)
- About the injured person(s), if any (i.e. Particulars, Employment Details, Injury Details, Other Details)

In submitting the Incident Report on a work-related accident, you will come under one of the following categories of informants listed below.

- i. Employer Only/ Representative of employer
- ii. Occupier Only/ Representative of occupier
- iii. Victim's Legal Representative
- iv. Treating Doctor
- v. Victim's Next-of-kin
- vi. Victim

The following will describe the different reporting requirements depending on which type of informant you belong to.

8.2. OSH-Education

- Singapore Government and related agencies are tackling the OSH-Education, in the Subjective and Close-Cooperation with 「NTUC」 and 「SNEF」.

Refer to 「7.3.3」 and 「7.9」

8.3 OSH License and Qualification System

(1) Types of OSH Licenses and -Qualifications

a MoM' s WSH-License Scheme

- Construction of a contract S\$1,300x10⁴ or more: Required to appoint WSH-Manager
- Construction of a contract S\$1,000~1,300x10⁴: Required to appoint WSH-Coordinator

- Worksite Representative: Safety-Training Course for Worksite Representative;
Certificates are issued to Successful-candidates
- Safety Manager : Safety-Training Course for Safety Manager, Successful Candidates are to duly be Registered to MoM
 - Required to compulsorily attend the 「Safety-Training Course of Level C」, and further to gain several years practical work-experience; thereafter, competent to make an application to MoM for Registration
 - The License to be renewed every 2 years; when the Holder' s structural as well as non-structural knowledge and expertise on 10 subjects are to be tested, whether they are developed and sustained for the past 2 years.
- Designated Medical Officer : Specific works (say, Compressed air-related works) only; Right or proper Medical Doctors to be allocated or designated

b MoM' s External WSH-Audit Scheme

- External Auditing-corporations to strictly implement every 6 months, for relevant enterprises of certain specified-size or over
- Whether WSH-systems of the enterprises are reasonable or not, to be checked and secured.
- The External Auditing-costs to be claimed to MoM

(2) Resume of Licenses and Qualifications

- Training-course for Worksite-representative :
3-days Training on Risk-assessment, Case-studies, OSH-Laws and Regulations, and so forth; and Principal works, say Tunneling work, Excavation work, Confined-space work, Compressed air-related work, etc.
- Training-courses for Safety-manager : Lectures and Training of 10 hours/ week x 6 months

- The authorized Table, listing various Training-courses and relevant Qualifications, are officially announced.

8.4. OSH-Management in Business Office

- The OSH-Management structures, in Business Office, are not particularly specified in the Rules:
for instance,

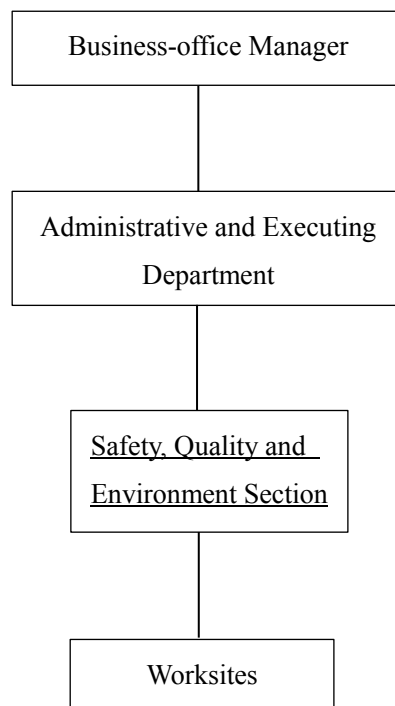


Fig.8.1 Formation of OSH Management in Business Office (for instance)

8.5. OSH-Management at Worksites

(1) OSH management at Worksite

- Construction of a contract S\$1,300x10⁴ or more : Required to appoint a Worksite OSH Manager; and
- Construction of a contract S\$1,000~1,300x10⁴: Required to appoint a Worksite OSH Coordinator

The Accident Prevention Committee is to separately be set up, with the President being the Worksite Representative and the Vice-president being the OSH Manager.

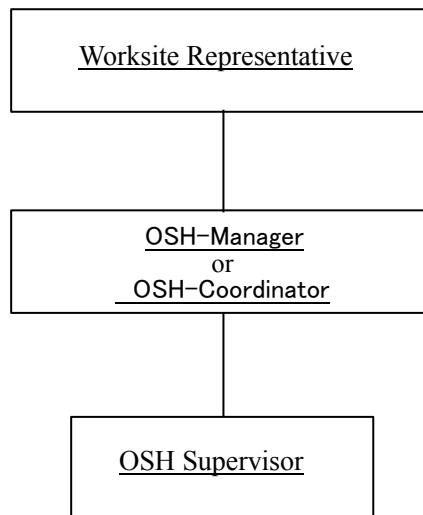


Fig.8.2 Formation of OSH-management at Worksites (for instance)

(2) Submission of Documents on OSH management Plans

a Required documents to be submitted

- Assembling and disassembling of Scaffolds of 2m or higher, Tunnels of diameter 1.5m or more, and so forth; Method-statements to be submitted for Work-registration to MoM, in accordance with the OSH Regulations
- Excavation work, Tunneling work, Piling work, Scaffolding work, and so forth; Method-statements to be submitted to the Ministry of Construction [Building and Construction Agency (BCA)]

b Deadline

There are no specific deadlines for submission, but earlier before the start of these works. To get the Permit, however, it will take 14 days for MoM-related Works, and 3 months to 14 days for BCA-related Works, respectively.

c Submission-forms

- Available, and to be submitted on-line

8.6. Occupational Accidents Compensation Insurance System

(1) Occupational Accidents Compensation Insurance System

a Overview

- Not directly run by the Government, there exists the private-operated Insurance system of Occupational Accidents and Diseases Compensation Insurance. Employers are demanded to take out Private Accidents Compensation Insurance to manual-workers and workers with monthly salary of S\$1,600 or less.
- Upon notification of Medical-facilities, MoM assesses the Compensation to be paid and issues a 「Notice of Assessment (NA)」. When no objection is raised against the assessment, the Employer or Insurance Company has to pay the amount to the Victim of the Accident.
- When objected against the assessment, the victim can raise an Objection under the Dispute-Resolution mechanism. Objections on the degree of Permanent Disability are settled by the 「Work Injury Compensation Medical Board」

b Governing law

- Work Injury Compensation Act.

c Compensability

- Compensable to those workers under Employment-contracts with Employers. Household-employees, are not compensable.

d Benefits

- Medical-benefits;
When workers are deemed compensable for Medical-care due to an Accident or at Work, they receive in-kind benefits up to one year from the date of accident, and additionally up to S\$25, 000 for medical treatment.
- Benefits for temporarily Total-Disability;
When workers are deemed temporarily Total-Disabled due to an Accident or at Work, they are paid wages, fully earned during the period of the disability, which would be up to 14 days if deemed needless to Hospital, or up to 60 days if deemed needful in Hospital and additionally 2/3 of wages beyond those periods. The benefits are paid as long as Disability continues within the limit of one year.
- Benefits for permanently Partial-Disability;
When workers are deemed permanently Partial-Disabled due to an Accident or at Work, they are paid monthly wages for age-worthy nos of months (ranging from 72 (66 years old or over) to 181(14 years old or under)), multiplied by a rate of loss of earnings (to be determined based on the degree of Disability) within:
 - upper limit: S\$180,000 x rate of loss of earnings
 - lower limit: S\$ 60,000 x rate of loss of earnings

- **Benefits for permanently Total-Disability;**

When workers are deemed permanently Total-Disabled, due to an Accident or at Work, they are paid:

「In case of death under medical treatment」

- They are paid monthly wages for age-worthy nos of months (ranging from 72 (66 years old or over) to 181 (14 years old or under)) as a lamp sum:
 - upper limit: S\$180,000
 - lower limit: S\$ 60,000

The above are increased by 25% when the Injured need permanent nursing care.

「In case of nonfatal」

- They are paid monthly wages for age-worthy nos of months (ranging from 48 (66 years old or over) to 136 (14 years old or under)) as a lamp sum.
 - upper limit: S\$140,000
 - lower limit: S\$ 47,000

e Source of Funds

Covered by Insurance Premiums paid by Employers

[Remarks]

- Illegal immigrants are actually existing, but their nos are unknown. However, foreign workers are covered by the Occupational Accidents Compensation Insurances.
- Under the Employment-Act, those covered by the Occupational Accidents Compensation Insurance are basically blue-color Workers. While under the Labor-Standards Act, all those with monthly wage of S\$4,500 or less are compensable. Common construction-workers are earning monthly salary of S\$2,000 or less, and accordingly they are necessarily compensable. Since the Occupational Accidents Compensation Insurance is limitedly applicable to both of those in the Construction-and Manufacturing-sectors only, Most of Foreign-workers are naturally Compensable.
- The payment per year for the total Occupational Accidents Compensation Insurance-Claims amounts to S\$75 million or so.

8.7. OSH-Application to Foreign-workers and Issues to be settled

- On June 22, 2016, Mr Sam Tan, Minister of State, MoM, announced that the Government would grant subsidies to the Contractors, that provide Foreign-workers with Safety-education. The initiative was taken to address many accidents, taking place on Worksites. The Grant would start from October in the same year to reduce the Foreign-workers' tax (Poll tax); reported the Straits Times of June 23, 2016.
 - Foreign-workers, eligible for this Subsidy, are those who have worked for 6 years or more in the Construction-sector in Singapore with 「Permits by BCA」. When those workers attend the Safety-training course of 120 hours or more or get a higher level of 「Technical Skills Certification」, the Foreign-workers' tax (Poll tax), paid by the Employers, would be reduced by S\$350 every month per worker.
 - Foreign-workers, meeting those requirements, would be upgraded in their status to 「*Skilled-worker (R1)*」, and their period of Employability extended from 10 years generally to 22 years at the max.
 - In 2015, Worksites in Singapore saw the largest nos of Fatal-accidents took place. With 17 accidents already occurred in 2016, the Government decided to introduce the Grant to enhance the Safety-measures.
 - The Poll-tax, imposed on Foreign-workers with 「Work Permits」,is currently between S\$300 and S\$950 every month per worker. While the Poll-tax on workers, employed under the 「Man-Year-Entitlement (MYE) system」, the quota for admission of unskilled Foreign-workers would be raised by S\$100, starting from July in the same year.

(Source: The Daily NNA Singapore & ASEAN Edition (Jiji Press affiliate) of June 24, 2016)

- Accommodations for Foreign-workers in Singapore are mostly located in the areas rather away from downtown, notorious for their health environment. Prone to Mosquito emerging, roughly 450 Zika-virus carriers were incident to in the areas in 2015. To prevent the recurrence of this infection, the Government revised Regulations on Accommodation to improve the health environment.

8.8. OSH-Application to Foreign-enterprises (including Japanese-enterprises) and Issues to be Settled

- It seems that the Strict and Impartial Application is equally implemented to Foreign-enterprises as well as to Local-enterprises, Nevertheless, whether the different realities are existing or not can actually be unknown.

8.9. Administrative OSH-Improvement and -Innovation in Singapore towards Future

8.9.1. Singaporean Society and OSH

(1) Main issues on Politics, Society, and Economy in Singapore

- In 2015, Singapore celebrated the 50th Anniversary of Independence. Poor in natural resources, Singapore now faces the keen challenges to the declining-manpower, declining-birthrate, and aging-society as shown in their population-pyramid. The questions how to run the society and how to make the way in the coming 50 years are seriously thrust before.
- For the past 50 years since their Independence, Singapore has sought to learn advanced knowledge and expertise of the Western-world, in particular UK and other advanced European-countries, to choose and select them, and thereby to build and develop their optimum and best-fitting political, social, and economic systems, contriving their economic development to the greatest priority.
- In the coming 50 years ahead, however, Singapore would have to challenge to build their own Political, Social, and Economic systems: With a proper sense of crisis, they feel urged to take effective measures to serve three million native-Singaporeans, including the improvement of Higher-Education, Capacity-development, and Livable-environment systems for younger generations.

(2) Main issues on OSH in Singapore

- One of the important OSH-issues in Singapore is that, out of their 5.6 million total population, Foreign-workers amount to 1.6 to 1.7 million, aside 3 million native-Singaporeans and 0.9 million permanent Foreign-residents. Singapore has always placed the greatest emphasis on their economic development, and these Foreign-workers have been made the most of, in a sense, as the tuning-valve of the fluctuation of Singaporean-economy, taking the best interest of the 3 million native-Singaporeans.
- Currently, there are the moves to reduce the Poll-tax on Foreign-workers, truly compliant with the country's OSH-regulations, or to limit the nos of Foreign-workers under the 「Man-Year-Entitlement (MYE) 」, implemented since 2010. There exist also initiatives to give skilled Foreign-workers without record of accidents and violations, the 「Grant for 22 years of Employment」at max, and to simplify the procedures for 「Work-visa Renewal」, subject to their attendance to prescribed OSH-training courses. On the other hand, the 「Employment-Permit」 is held to the renewal of every three years, and Foreign-workers, with unsafe behaviors or utterly lost workability, are either deported or urged to return homes.
- As the main OSH-policy of Singapore, the Government enhances the means and tools to provide Workers with OSH-education, and implement measures to help Small and Medium Enterprises prevent accidents, and offers the Work Injury Compensation Insurance, as well as the Financial assistance.
- It is said, within the past two years, Singapore signed OSH-related consulting agreement with UK, and international technical cooperation-agreement with ILO respectively.

8.9.2 Singapore's OSH Enforcement Means & Tools, driving forward the powerful Improvement and Revolution

(1) Continuation of「VISION ZERO」campaign

- While 2014 recorded the lowest workplace Fatality-rate to date, it is crucial to ensure that this good WSH-performance is sustainable. To this end, the National 「Workplace Safety and Health-2018」 campaign focuses on the 「Vision Zero」 movement with the message 'I can prevent all injuries and be healthy at work' .
- It requires a mindset that all Injuries and Ill-health from Work are preventable and a belief that zero-harm is possible. The campaign aims to create the awareness and importance of this mindset, and focus on finding solutions to prevent injuries and ill-health, as well as improve the quality of their lives.
- The 「Vision-Zero movement」 will help to align the mindsets from compliance to commitment, and to unite all stakeholders to work together to improve WSH outcomes.

(2) Continuation of 「(WSH-2018 Strategy)」Enforcement

a Short-term Targets

① 「RM2.0」

- WSH Risk Management (RM) is a process of identifying workplace hazards, assessing the Risks associated with the hazards, and eliminating or controlling the Risks. RM is the cornerstone of WSH-Management, which aim is to prevent workplace accidents and ill-health. Introduced in 2005, the RM framework has helped reduce workplace Fatality-rate and shape the WSH-landscape in Singapore.
- 「RM 2.0」 is an enhanced version of the existing RM-framework. It places emphasis on a pragmatic-approach towards effective-upstream Risk-Control through elimination, substitution and engineering controls; and a holistic-approach towards Safety and Health Risk Assessments, taking human factors into consideration.
- To provide compliance-assistance to industry on RM 2.0, the 「Code of Practice on WSH Risk Management」 was revised and launched during the 「bizSAFE」 Convention in February, 2015.
- In view of a heightened awareness of Occupational Health Hazards in the industry, the risk evaluation of health hazards is included in the revised Code to enable a holistic-RM implementation.

② 「Pro BE Plus 2014」

- Based on accident-trends in 2013 and early 2014, MoM and the Workplace Safety and Health Council has identified Formwork-Safety, Work at Heights and Crane-Safety as priority focus areas for 2014 「ProBE Plus 2014」, where year-long efforts to raise awareness and build industry-capabilities will be systematically followed by targeted enforcement operations based on these focus areas.

③ Review of 「Work Injury Compensation Framework」

- A good 「Work Injury Compensation (WIC) system」 for Singapore has to go beyond Injury

Compensation to one that places greater emphasis on the Injured-workers in their Rehabilitation and Return back to Work. In this new WIC-landscape, it is envisaged that the various stakeholders will play a proactive role in shaping a progressive WIC System for the Injured-workers. In doing so, it will also have a positive bearing on the WSH outcomes, where every Injury, Fatality, Occupational-Disease should be prevented as much as possible in the first place.

- To achieve this, the review will broadly cover areas such as
 - ensuring WIC remains relevant and fair
 - ensuring WIC system remains expeditious
 - enhancing WIC to better address the Needs of Injured-workers
 - enhancing WIC system through reviewing roles of the stakeholders
- The review will take place in the next two years and will be working closely with the stakeholders on the various proposals.

④ 「MHI」

- At the 2015 the Committee of Supply-debate in Parliament, Senior Parliamentary Secretary Hawazi Daipi announced that a safety-case regime will be introduced for 「Major Hazard Installations (MHIs)」, with the aim of preventing major accidents. To implement the safety-case regime, a set of 「MHI Regulations」 is targeted for enactment by 2016.
- Industry will be given a year to prepare and build-up capabilities before the new Safety Case Requirements come into effect in 2017.

b Long-term Targets

① 「STRENGTHENING ENGAGEMENT WITH SMES」

- SMEs play an important part in Singapore's economy as they make-up 99 percent of the companies, employ 70 percent of the workforce and contribute 50 percent of the gross domestic product (GDP). With this in mind, WSH Council's commitment to the development of SMEs is clearly evident since 2011, where one of the strategic priority areas was to enhance sectoral efforts in engaging SMEs.
- Various forms of assistance were developed by WSH Council since its formation in 2008, for instance, 「Risk Management Assistance Fund (RMAF)」, 「bizSAFE」, 「Go-To-Engagement」, 「WSH Culture Funds (WCF)」, WSH Assist and electronic WSH bulletines, and so forth, to ensure that SMEs successfully incorporate WSH in their operations.
- It is necessary to deepen and enhance their engagement efforts by developing sector-specific approaches, that take into account the distinct nature, challenges and WSH landscape of SMEs in each industry. A structured approach would be put in place to leverage on the work done by various agencies for SMEs, and to reap synergies for effective outreach and engagement.

② 「REVAMP OF THE WIC SYSTEM」

- The aim of the 「WIC-System Revamp」 is to build a more sustainable and efficient system that can contribute to a better 「WSH-environment in workplaces」.
- This is done through a fundamental shift of focus from an injury compensation model to an

upstream WSH-prevention one, contributing to better WSH-landscape in workplaces. Better WSH will lead to fewer Work-injuries and reduce the Costs of Injuries.

- The new system will also place more attention on Injury-management and Return to Work, that will help employees remain economically productive, and benefit employers with shorter downtime.
- Insurers will also be given a more significant role in managing WIC-claims to help bring about quicker case-settlements.

③ 「DEVELOPER AND DESIGNER EARLY ENGAGEMENT PROGRAMME (D2E2)」

- 「D2E2」 is developed by the OSH Inspectorate (OSHI) with a view of addressing WSH early at the start of a Building-project. It is an initiative to engage Developers and Designers of large-scale projects and projects that may have significant WSH-Risks.
- OSHI will work with these developers and designers to set the projects' specific WSH performance targets in the early phases and recommends improvements to the design where possible.
- A planned schedule of joint worksite-visits by MoM will be developed to enable closer surveillance and identification of potential hazardous-areas. Thematic-inspection such as for lifting-operations and health-risk controls, will also be initiated as part of the program.
- To date, collaboration with developers on 「D2E2」 has been initiated for 3 projects, with 2 other projects are scheduled to commence in the pipeline projects.

④ 「TOTAL WSH」

- As part of the strategy to meet Workplace-Health challenges arising from Ageing-workforces, the rise in the nos of workers with Chronic-Diseases, and emerging WSH-risks, the concept of 「TOTAL WSH」 was developed as an approach to managing safety and health in the workplace holistically.
- It is a comprehensive and integrated approach to managing WSH-risks to provide and maintain a safe and healthy working-environment to all employees by identifying and addressing all WSH-risks in a proactive and integrated way.
- An implementation-guideline, prepared in collaboration with the Health Promotion Board, has been developed to assist companies in their journey towards TOTAL WSH.
- To signal the importance of the workplace in protecting and promoting workers' health and safety, announcements would be made at strategic-platforms on the concept of TOTAL WSH as a new paradigm for Workers' Health, Safety and Well-being. The Singapore WSH Conference 2014 would have as its theme, 'Integrating Safety and Health: Towards a Holistic Approach'.

⑤ 「GREATER DETERRENCE AND QUALITY OUTCOMES THROUGH ENFORCEMENT」

- While developing WSH-capability in the industry and promoting the benefits of WSH, enforcement will remain the backbone of OSHD's WSH-framework.
- In 2014, OSHD would strengthen and step-up its enforcement efforts to ensure the compliance of 「Basic Safety Standards」 especially in the areas, where work Injuries and Fatalities are more prevalent. MoM will continue to work closely with the Industry to raise

WSH-standards but also to take stern-action against Errant Stakeholders.

8.9.3. 「WSH-2018 Strategy」, lapping into the Fresh 「WSH-2025 Strategy」

- The Singapore Government has already started to review the ongoing 「WSH-2018 Strategy」, and identify major tasks for the functional-enhancement. In other words, the new 「WSH-2025 Strategy」 shows the fundamental principle, strategy, and right priority to further improve the OSH-performance to New OSH-Peaks.
- The new Strategy is aiming at not only the OSH-aspects of Onsite-work, when entering the Work-phase, but the OSH-aspects upstream of the Project, that is, even at the project-Concept, Planning, and Design, examining the Risks through BIM/CIM technologies, and eliminating the Risks of hazardous-work, thereby ensuring Onsite-OSH.

(1) Introduction of 「Construction (design & Management) Regulations」, and the Future OSH-management sought by Singapore

- The decrease of the nos of deaths per 100,000 workers has seemingly hit bottom in the last 5 to 6 years. To break through this situation, Singapore here launched「D2E2-Strategy」to go beyond the conventional Onsite accident-prevention at the Work-phase, and introduced the 「Construction (Design & Management) Regulations」 from UK in August, 2016.
- As the 「D2E2 Strategy」, the Regulation focused on the OSH at the Concept, Planning and Design phases of the Project. These tacklings are exactly consistent with the Policies sought by UK, advanced EC, US and so forth.

a Construction Industry' s Demand in Singapore

- The rate of Aged-people in Singapore is expected to rise from one in seven today up to one in four by 2030. In the coming 5 to 10 years, Singapore would be anticipated to have a boom in constructing Large-Buildings, such as 720 to 400-resident Nursing-homes or Condominiums, and further Hospitals for Aged-people, and moreover the reconstruction and renovation of HDB-Condominiums, built before 1984, which accommodate 80 to 90 % of Singaporeans.

b Tackling OSH-targets in Work phase

- Detailed check and scrutinizing of OSH in Workplaces
 - Check and scrutinize all OSH-factors in workplaces in a comprehensive manner, that is, examining not only work-methods, procedures, and ways, but also work-periods and costs.
 - Consider the Prefabrication of Structural-members as well as Safe work-operations, and settle OSH-issues through the Repetition of identical or simple Work-operations, that is, Pre-casting structural-members in Factories, and on the other hand fixing handrails for Temporary-openings, with permanent structural -members, anticipating Erroneous-falls during Work
- Conversion from Manual-operations to Mechanized-operations

- Specific hazardous-operations, for instance, Painting-work at Heights, are to be replaced by Painting-robots. Similarly Sliding-formworks at Heights, preventive Safety-devices to usual lifting-cranes, and so forth, are to be introduced as well.

c Tackling OSH-targets earlier in the Concept, Planning, and Design phases

- In the United Kingdom, proactive OSH-considerations on the Work-phase, earlier in the project-Concept, -Planning, and -Design phases, are already mandatory.
 - The 「Construction (Design & Management) Regulations」 were enacted in 1994, implemented in March 1995, and revised in 2015. The Regulation has been applied to all construction projects. The CR clearly defines the Respective Responsibilities amongst all Actors, including Employer, Designer, Contractor, and Workers. In particular, the Employer is supposed to secure Sufficient Funds and Time to properly manage the Project, Supervise, and Coordinate the Safety and Health of all Members, working on Sites, that is, he is held responsible for spending Funds and Time for the Safety and Health of Everybody.
 - The CR is aiming at OSH accident-prevention since the early stages of the Project, that have significant Effects and Influences on the Safety, Health and Cost of the Whole-work, and eliminating Hazardous-operations in the Work-phase, so that all Hazards and Risks in the construction, utilization, maintenance, abandonment of the Facilities would steadily be checked and examined, thereby improving the Efficiency of Work, saving the Cost and reducing the Work-period.
 - The CR is, as it were, the concretization of the 「*Prevention through Design (PtD)*」 concept, in the United States.
- To definitely realize this Concept, the means and tools of supporting at practical-levels have been implemented, including:
 - Improvement and indirect-support on OSH, through OSH-related Legislation, Education, Qualification, and Organizational-activities
 - Enhancement of Government-initiative Educational-institutions, Official-Certification and
- Qualification Schemes, such as 「Construction Skills Certification Scheme (CSCS)」, 「Construction Plant Competence Scheme (CPCS)」, 「Construction Industry Scaffolders Record Scheme (CISRS)」, and so forth.

d Tackling expectantly OSH Future-Targets

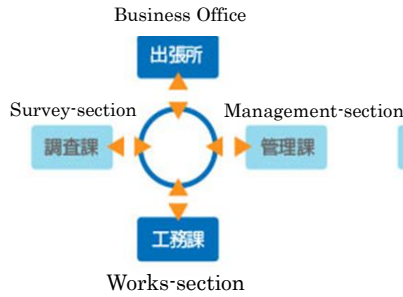
- In line with the processes of the project planning, survey, design, construction, utilization, maintenance, and renovation, the 「Best-use of IT」 could be made of, that is, clearly Visualizing not only the External-forms of Buildings or Facilities but also Shadow-Parts, Elements and Structural-Members on the Computer. By integrating all Information on the Planning, Survey, Design, Construction, Utilization, Maintenance and Renovation of the Buildings or Facilities, the OSH at Works, needless to say, Quality-insurance, and Environmental-performance of the Project could be ensured as well, and moreover the total Cost and Work-period be also reduced through improved Work-operations and-efficiency.

Current Target

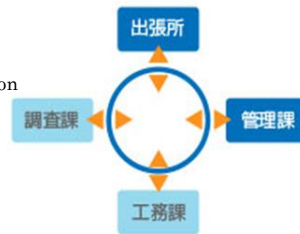
Best-use of BIM/CIM Technologies

Cost-estimate, Execution, Supervision & Inspection

Concept, Survey, Planning, Design



Maintenance service



- 3D-data, partially and efficiently used, supplementing 2D-drawings
- Cooperative and Paralleled works, partially proceeded

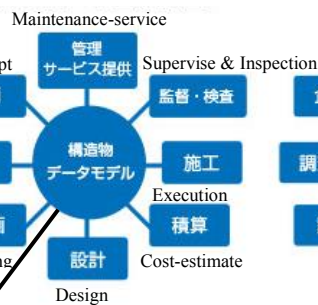


Future Target

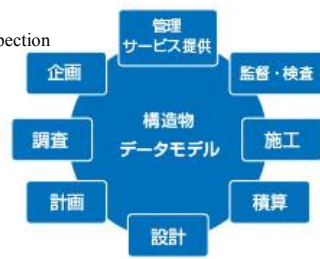
Best-use of BIM/CIM Technologies

Cost-estimate, Execution, Supervision & Inspection

Concept, Survey, Planning, Design



Maintenance-service



Buildings and Facilities' DATA MODEL

- Data-model, efficiently developed and modified, with a Project being proceeded
- Addition, Modification and Deletion of various DATA

Fig.8.3 Best-use of BIM/CIM Technologies

(Source: JACIC Research and Development Department: Concepts of CIM; January 2017)

(2) To preliminarily consider Introduction of Automated Building Construction System (ABCS) for the Present

- The Automated Building Construction System is a system that introduces the Ideas of 「Factory-automation」 into the Construction of High-rise steel Buildings, aiming at Automatization, Mechanization, and Computerization at Worksites. ABCS achieves significant labor-saving and high-level productivity, work- safety, and eventually high-quality Buildings. The Factory-arrangements installed are covered with Roofs and Walls, and provide All-weather Working-spaces. The Ceiling-cranes and Lifts, Climbing mechanisms, and other Equipment and Devices are comprehensively controlled at the Central Control Room in the Building, as well as providing High-level of Safety. The ABCS with the Work-floor, where steel structures are assembled and erected, is effectively protected with the see-through External-frameworks.

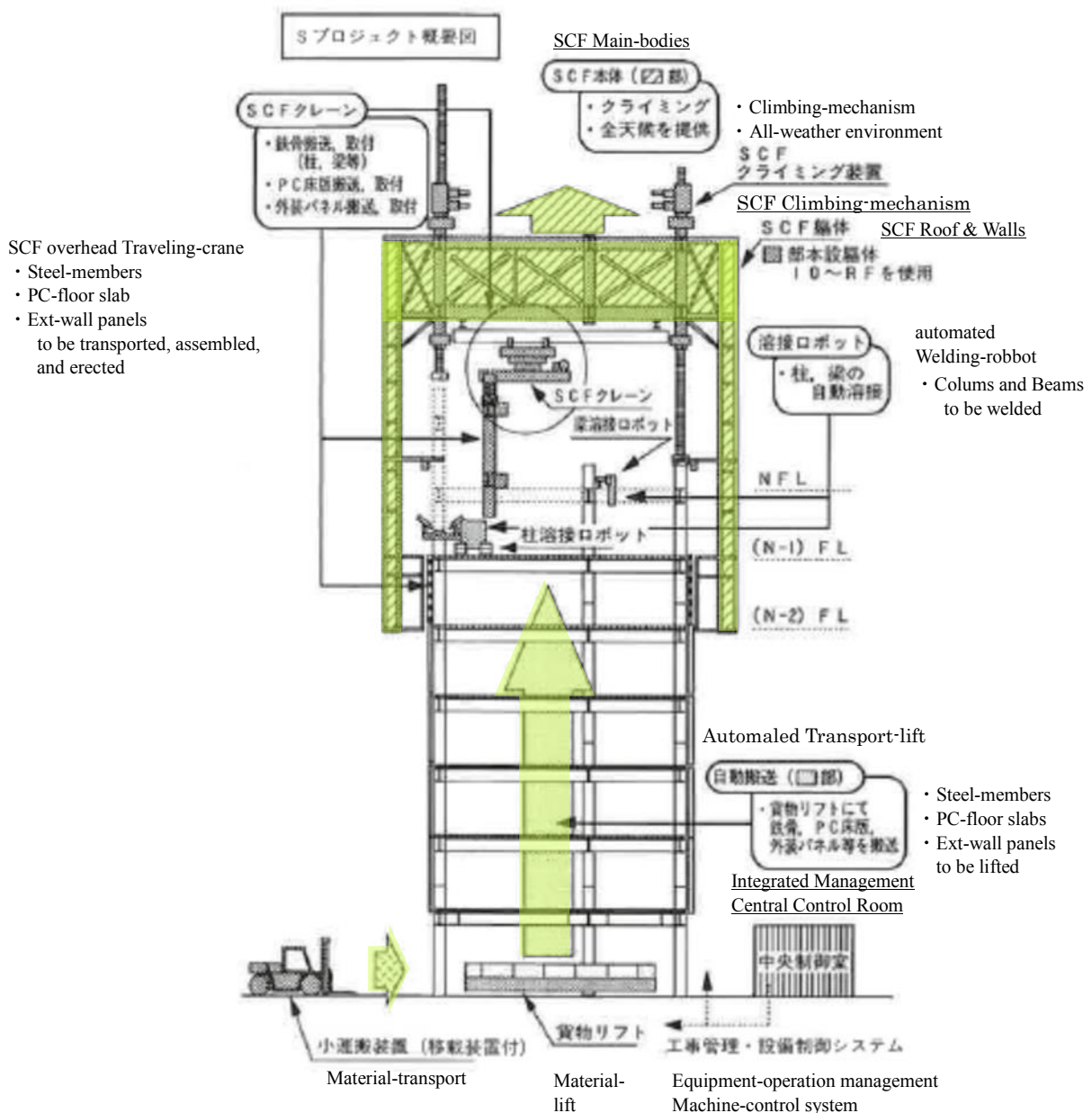


Fig.8.4 ABCS Components of Super Construction Factory

- The characteristics of ABCS are:

a Reducing the Work-period through High-level productivity

The Factory-arrangements, covered with roofs and walls, provide All-weather Working-spaces. Combined with the Prefabricated and Unitized structural-members, ABCS reduces the Work-period, which is particularly effective in constructing Super High-rise Buildings, involving Repetitive-operations

b Improving Safety-level during Work

Subsequently to the completion of every floor, the Factory-roof climbs up to cover the next-coming floor, one after another in order. This largely reduces Working at Heights and increases Workers' Safety. The entire perimeter of the Floor, on which steel structural-members is being assembled and erected, is protected with the External-envelop of see-through nets, and thus reduces Accidents caused by Flying or Falling-objects.

c Labor-saving

Active introduction of Automation, Mechanization, Computerization, and Prefabrication and Unitization of structural-members make significant Labor-saving possible.

d Providing High-quality Buildings

The mechanization of working-processes and introduction of Computerized Central-management System make it possible to provide High-quality, and High-precision Buildings.

e Reducing impact on the surrounding environment

Since all Working-operations are conducted Inside the Factory-Spaces, the impact of ABCS on the surrounding-environment is reduced to the min. The Building can be constructed without damaging urban landscape and enhances the image of the Building.

(Source: A 33-story, super High-rise Building being constructed by ABCS; Press release by Obayashi Corporation, June 12, 2001)

- However, not only with ABCS but also with all other conditions and environment, when switching from manual-operations to mechanical-operations, it will be needed to consider many factors, that is, the Work-cost; the Harmonization of Design and Work-operation in Mechanization, Automation, and Computerization; the Integration of Planning system and onsite Work-operation system; the Change in the job contents of professional Workforce; and the Change in the required quality of Workers, in response to Changes in Work-methods. Needless to say, all these require to carefully scrutinize the Political, Social, Economic, and other Factors, and to prudently make Right and Proper Decisions.

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9. CAMBODIA

9. Basic Information on OSH in Cambodia

9.1. Profile of Cambodia

The Cambodian economy recorded a high, double-digit economic growth rate for the four consecutive years of 2004 to 2007. Although the rate fell to 0.1% in 2009 under the impact of the worldwide recession triggered by the subprime mortgage problem, it quickly recovered to 6.1% in 2010 and thereafter kept a growth rate of over 7 %.

The inflation rate for 2015 was low at 1.1% on average thanks to the stagnation of oil prices and the stabilization of food prices. The current account and the fiscal account have been in chronic deficits: IMF expects the former to be 11.1% less (than GDP) and the latter 2.0% less (than GDP) for the year 2015. Driven by steady increase in sewn goods and other export goods, the construction and service industries, and foreign direct investments, the Cambodian economy is expected to keep steady economic growth in the years to come.

(Source: Basic Data, Kingdom of Cambodia, MOFA, partly revised)

9.1.1. Country Name

Kingdom of Cambodia

9.1.2. Area & Population

Area : 181,000 km² (less than half area of Japan)

Population : 14.70 million (Estimate value in 2013)

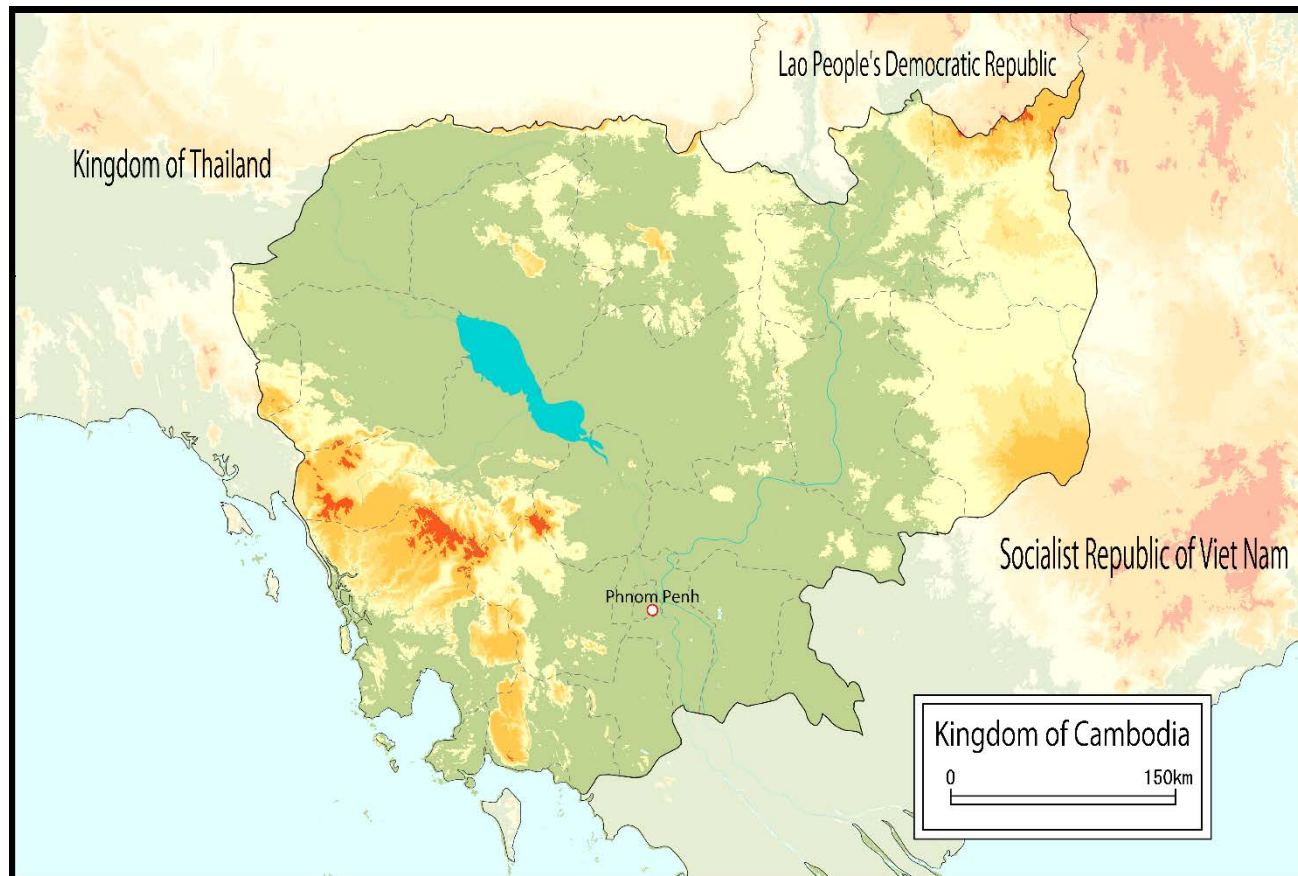


Figure 9.1 Map of Cambodia (Source: JICA Study Team)

Table 9.1 Population in each province, Cambodia

Province	Population (FY 2008)
Banteay Meanchey	678,033
Battambang	1,024,663
Kampong Cham	1,680,694
Kampong Chhnang	471,616
Kampong Speu	716,517
Kampong Thom	630,803
Kampot	585,110
Kandal	1,265,085
Koh Kong	139,722
Kratie	318,523
Mondul Kiri	60,811
Phnom Penh	1,325,681
Preah Vihear	170,852
Prey Veng	947,357
Pursat	397,107
Ratanak Kiri	149,997
Siemreap	896,309
Sihanoukville	199,902
Stung Treng	111,734
Svay Rieng	482,785
Takeo	843,931
Oddar Meanchey	185,443
Kep	35,753
Pailin	70,482
Total	13,388,910

(Source: National Institute of Statistics, Cambodia)

9.1.3. Capital City, Latitude & Longitude

Capital City : Phnom Penh

Latitude : 11.35N Longitude: 104.54E

9.1.4. Feature of Meteorology, Annual Temperature

in Phnom Penh Max. Temperature: deg C Min. Temperature: 21.7 deg C

Feature of meteorology: Tropical monsoon / Rainy season from May to October / Dry season from November to April

9.1.5. Religion & Language

Religion : Buddhism (97%), Islam (1.9%)

Language : Cambodian (Khmer) (96%)

9.1.6. Currency

Riel (1US\$ = 4.086Riel September, 2014)

9.1.7. Number of Workers

All industries : 62.43 million
Agriculture & Fishery : 43.84 million (70.2%)
Construction industry : 94 thousand (1.5%)

9.1.8. GDP (in 2013)

Nominal GDP : 14.2 billion US\$
GDP per capita : 933 US\$
Growth rate of real GDP: 7.3%

9.1.9. Past Investment Record

- ① FDI from Japan: 320 million US\$ (2012)
- ② Number of Corporate Investment: 72 cases

Investment sum total: 488.56 million US\$ from 2010 to December, 2013, approval basis

Number of registered Japanese firms on Chamber of Commerce in Cambodia: 128 (April, 2014)

9.1.10. Past ODA Record from Japan

- ① Japanese Yen Loan : 42.7 billion Yen (total sum until FY 2011)
- ② Japanese Grant Aid : 156.5 billion Yen (total sum until FY 2011)
- ③ Technical Cooperation : 63.7 billion Yen (total sum until FY 2011)

(Source on 9.1: Website on Ministry of Foreign Affairs, Japan)

9.2. Policies on Occupational Safety and Health

There is not any written national OSH policy or OSH related articles yet in the National Socio-Economic Development Plan. But, there are articles in the Royal Government Rectangular Strategy (Phase II) of the 4th mandate: Side 3 and Side 4 of the Rectangular III and Side 2 of the Rectangular IV:

Side 3 of the Rectangular III:

Job Creation and Ensuring Better Working Conditions for Workers and Employees: The Royal Government will implement at systematic policy aimed at:

- (i) Creating jobs, especially for young people entering the labor market, and for all Cambodian laborers through various measures which encourage domestic investment in priority sectors, especially agriculture, agro-industry, labor-intensive industries and tourism;
- (ii) Establishing skills training networks for the poor, linked to employment assistance especially for young people and new graduates to response to new labor market needs;
- (iii) Developing a Labor Statistical System. More attention will be focused on improving the management of foreign workers in Cambodia to create jobs for Cambodian citizens and facilitate the transfer of new technology for national development.

Side 4 of the Rectangular III:

Establishment of Social Safety Net for Civil Servants, Employees and Workers:

The Royal Government will seriously enforce the Labor Law and other International Conventions related to the role of trade unions in order to insure the rights and benefits of workers, employees and employers. The Royal Government will put special priority on improving the working conditions of workers and employees, enhance the implementation of the Law on Social Security, encourage the implementation of pension funds especially pensions for disability and dependents, and insurance for work

The Overview of Occupational Safety and Health in Cambodia accidents as stipulated in the Labor Law.

Side 2 of the Rectangular IV:

Ensuring Enhanced Health Services:

The Royal Government will continue to focus on the implementation of prevention programs and combat contagious diseases and promote maternal and child health care to reduce the maternal and infant mortality, improve emergency services and provide health and sanitation education and information, especially in the rural areas. The poor shall be entitled to free health care in referral hospitals and health centers. Equity funds designed to help the poor in accessing quality of health care services will be further strengthened and expanded.

(Source on 9.2: “The Overview of Occupational Safety & Health in Cambodia, April, 2011” by MLVT)

9.3. Administrative Organization on OSH

(1) Organization

- i) Ministry: Ministry of Labor and Vocational Training
- ii) Department: Department of Occupational Health and Safety

(2) Outline & roles of the organization

i) Roles of DoHS

- i. Planning & implementing labor administration
- ii. Management of Cambodian workers in foreign countries and foreign workers in Cambodia
- iii. Dissemination & policy promotion on OSH related laws and regulations
- iv. Conciliation & mediation of labor dispute

ii) Roles of Department of Labor & Vocational Training

- i. Review the demand in the labor market and develop a national policy on vocational training;
- ii. Operate and manage institutions and systems for technical vocational training;
- iii. Collect data and compile statistics for technical vocational training;
- iv. Provide those of students at technical vocational training who are financially challenged with funds necessary to start a business;
- v. Ensure coordination between private companies in the industrial sector on one hand and public institutions, education and training institutions, NGOs and international organizations on the other hand;

(3) Inspection of project sites by the administration (inspection)

i) Outline of inspection

Articles 233 to 237 of the Cambodian Labor Law prescribe inspection of the enforcement of legal provisions on OSH. According to Article 233, to ensure the enforcement of regulations on occupational safety and health at workplace, labor inspectors must visit establishments and inspect workplaces on a regular basis in company with safety experts. The labor inspector must notify the employer of violations found before drawing up an official report. This prior notice is to give the employer a warning to take a corrective action by the expiration of the notice. However, the Article states that, if the inspector finds that the violation has a serious impact on workers' safety and health, s/he must immediately report the violation officially without waiting for the expiration of the notice.

ii) Executor of inspection

Labor Inspector and/or Administrative Officer

iii) Target sectors for inspection, number of inspectors and their roles

The OSH inspectors cover all occupations in enterprises and companies in the private sector under the scope of the Labor Law of Cambodia: Chapter 1: Article 1.

So far, informal economy which is not registered by the Ministry, is excluded from the inspection. In the process of the Labor Law application, the informal economy will also benefit from the Law within the MoLVT's mandatory labor protection at the national level, for instance, an accident

prevention and insurance.

There are 91 OSH inspectors (19 based in the Ministry and 72 based in municipality and provinces) in charge of inspection visits countrywide. In the past, the regular inspection visits have been made only in Phnom Penh City. Since 2010 OSH inspections have been extended nationwide.

Roles of OSH inspectors;

- Conduct technical inspection on industrial hygiene (level of lighting, noise, dust, vibration and other harmful physical hazards)
- Build an OSH network in the establishment
- Promote medical check-up for workers
- Establish an HIV/AIDS Task Force or Committee in enterprises
- Provide OSH protection to workers and prevent workplace accidents and occupational diseases
- Advise employers and workers on OSH-related regulations and ministerial orders (Prakas)
- Explain measures to be taken in case of breakout of contagious diseases A (H1N1) pandemic and avian influenza).

iv) Response to comments on findings (Report on actions taken, amounts of fines, etc.)

When found in violation of Article 375 of the Labor Law on workers' safety and health, the company's representatives, directors, managers, or executives in charge are liable to a fine equivalent to 30 to 120 days wages.

(Source on 9.3 (1)-(3) (i), (ii): *Safety and Health Management in the Construction Industry Overseas*, JCOSHA, May 2015)

(Source on 9.3 (3) ③: *The Overview of Occupational Safety & Health in Cambodia* by MLVT)

9.4. Laws and Regulations on OSH

The legal hierarchy in Cambodia is as shown in table below.

Table 9.2 Legal hierarchy in Cambodia

The Constitution	The supreme law for the Kingdom of Cambodia
Treaties and Convention	Upon the approval of the National Assembly and the Senate, signed and ratified by the King. After ratification, international treaties (bilateral or multilateral) and conventions are considered as laws and become part of judicial criteria for reference.
Chhbab: Law	Laws adopted by the National Assembly
Royal Kram: Preah Reach Kram & Royal Decree: Preah Reach Kret)	Issued by King in his name by the authority given by the Constitution.
Anu-Kret: Sub-Decree	After adopted by the Cabinet, signed by the Prime Minister. If not adopted by the Cabinet, need to be signed by the prime minister and the relevant minister. The prime minister may issue a decree within his/her authority prescribed by law.
Prakas: Ministerial Order	Issued by a member of the cabinet within his/her authority prescribed by law.
Sechkdei Samrech: Decision	Issued by the prime minister.

Sarachor: Circular	Issued by the prime minister or a minister to explain or clarify a specific legal system or give instructions.
Arrete: Provincial Deka	Valid within the geographic limits of the province. Issued by the governor.

(Source: Council for the Development of Cambodia, Cambodian Investment Board, and Cambodian Special Economic Zone Board, Japanese site)

(1) Name and outline and content of items equivalent to the Occupational Safety and Health Act, regulations, ordinances, etc.

Employment and labor in Cambodia are prescribed by the Cambodian Constitution and laws and regulations, administrative rules, etc. below.

(i) Constitution of the Kingdom of Cambodia (1993)

(ii) Laws and regulations

- i. Immigration Control Law (1994)
- ii. Labor Law (1997)
- iii. Social Security (2002)
- iv. Articles 139 and 144 of the Labor Law as amended (June 2007)
- v. International Law

(iii) Administrative rules (Examples)

- i. Cabinet Order No. 571 "Export of Cambodian Labor Force" (1995.7.20)
- ii. MLVT Ordinance No. 80 "Overtime Work" (1999.3.1)
- iii. MLVT Ordinance No. 144 "Prohibition of employment of youth at night" (2002.6.10)
- iv. MLVT Ordinance No. 243 "Notice on Compensation for Occupational Accidents and Disabilities" (2002.9.10)
- v. MLVT Ordinance No. 161 "Employment of Foreign Nationals" (2001.7.16)

(iv) Articles 228 to 232, Chapter 8, of the Labor Law prescribe "Workers' Safety and Health."

Table 9.3 shows the ministerial ordinances mainly issued by the Ministry of Labor and Vocational Training (MLVT).

Table 9.3 OSH-Related Laws and Regulations

(Source: The Overview of Occupational Safety and Health in Cambodia)

Type of legislation	List of legislation
Law	The Law on Social Security Schemes for Persons Defined by the Provisions of the Labor Law, promulgated by Royal Krom (Order) No. NS/RKM/0902/018, dated 25 September 2002. The law composed of 6 chapters and 41 articles.
Prakas	Prakas No 052 dated 10 February 2000 concerning the sanitary toilet;
	Prakas No 053 dated 10 February 2000 concerning the seating arrangement at the work place
	Prakas No. 054 dated 10 February 2000 concerning the provision of the safe drink
	Prakas No. 330 dated 6 December 2000 concerning the Creation of Enterprise Infirmary
	Prakas No. 124 dated 15 June 2001 concerning the heavy object lifting by hand

	Prakas No. 125 dated 15 June 2001 concerning the air ventilation and sanitation
	Prakas No. 139 dated 28 June 2001 concerning Conditions and Missions of the Enterprise Physicians
	Prakas No. 147 dated 11 June 2002 concerning the Temperature
	Prakas No. 138 dated 22 April 2003 concerning the Noise at the Workplace
	Prakas No. 139 dated 22 April 2003 concerning the Work at the Confined space
	Prakas No. 484 dated 23 December 2003 concerning the Light and the Lighting
	Prakas No. 106 dated 28 April 2004 concerning the prohibition of working children from the dangerous work place
	Prakas No. 086 dated 03 May 2006 concerning The Creation of the HIV/AIDS Committee in Enterprises and Establishments and Managing HIV/AIDS in the Workplace
	Prakas No. 305 dated 14 December 2007 concerning the Maritime Fishing
	Prakas No. 306 dated 14 December 2007 concerning the Working and Living Conditions in Plantations
	Prakas No.308 dated 14 December 2007 concerning the Working and Living Conditions in Salt Fields
	Prakas No. 309 dated 14 December 2007 concerning the Working and Living Conditions in Brick Enterprises
	Prakas No.307 dated 14 December 2007 concerning the Occupational Health and Safety Conditions in Garment and Shoes Factories
	Prakas No.077 dated 30 March 2011 concerning the Information at the Construction Site
	Prakas No. 075 dated 30 March 2011 concerning the Sanitation at the Construction Site
	Prakas No. 076 dated 30 March 2011 concerning the Prevention of Risks associated with the Changing Weather Conditions at the Construction Site
	Prakas No. 078 dated 30 March 2011 concerning the Storage, Waste Management and Cleanliness at the Construction Site
	Prakas No. 343 dated 10 September 2002 concerning the Notice on work-related accidents, compensation and invalidity
Announcement	Announcement No. 003 dated 10 February 2004 of the Ministry in charge of Labor to remind all enterprises and establishments to comply well with the provisions of all Prakas issued by the Ministry concerning OSH
	Announcement No. 089 dated 4 September 2009 concerning the preventive measures on new avian influenza A (H1N1).
Circular	Circular concerning application of Joint Prakas No. 330 dated 6 December 2000 and Joint Prakas No. 139 SKBY dated 28 June 2001.

In addition to the MLVT, the following ministries and agencies draft laws, regulations, and ordinances on OSH.

- Ministry of Industry, Mine and Energy
- Ministry of Agriculture, Forestry and Fishery
- Ministry of Commerce
- Ministry of Health
- Ministry of Land Management, Urbanization and Construction
- Ministry of Environment
- Ministry of Public Works and Transportation

(2) Other regulations on OSH

The Labor Law stipulates that the employer maintain all workplaces and workers safe and healthy and comply with regulations on hand-wash stations, clinics, lighting, drinks, etc. (Article 229 of the Labor Law). It also requires the employer to provide employees involved in accidents at or while to and from work or in illness caused by work with necessary medical care and cover all medical expenses (Article 254 of the Labor Law).

The labor law also requires the employer to report every occupational accident to the MLVT, and that, receiving the report, the MLT conduct a survey to prevent recurrence.

Furthermore, the employer of an establishment, etc. hiring 50 or more persons is required to install a clean clinic of 20 square meters or more with numbers of beds and doctors proportional to the number of workers.

(Source for 9.4. (1): *Safety and Health Management in the Construction Industry Overseas*, JCOSHA, May 2015)

(Source for 9.4. (2): *Labor Management Manual, Cambodia*, 2nd edition, JETRO, October 2013)

9.5. Submission of OSH-Related Documents to the Administration Body

(1) Whether or not to submit construction plans, etc.

There is no provision that corresponds to the notification of construction plans as prescribed in Article 88 of the Occupational Safety and Health Act of Japan. There is no requirement to submit such plans, either. On the other hand, regarding safety and health at the construction site, the "MLOT Ordinance on OSH of Construction Sites in the Construction Industry (2011)" prescribes that:

- (i) A construction work site comply with Labor Law.
- (ii) A construction site comply with OSH standards to ensure the safety and health of workers.
- (iii) A construction site ensure workers' safety and health by taking safety measures and giving rest periods appropriately.

(2) By when to report

N/A

(3) Which forms to use, etc.

N/A

(Source on 9.5.: *Safety and Health Management in the Construction Industry Overseas*, JCOSHA, May 2015)

9.6. Contractor's Duties upon Occurrence of Occupational Accidents

(1) Occupational Accidents

All accidents involving employees or workers while they are at work to accomplish their tasks or while to and from work are regarded occupational accidents regardless of the cause leading to the accident or whether or not the accident was caused from their negligence (Article 248 of the Labor Law). The law also prescribes that all illnesses caused by work be considered as occupational illnesses (Article 257 of the Labor Law).

(2) Employer's duties upon occurrence of occupational accidents

(i) Whether or not to report

Whenever an occupational accident has happened, the employer is required to notify the MLVT of the accident in writing within 48 hours.

(Reference: *Labor Management Manual, Cambodia, 2nd edition, JETRO, October 2013*)

* In principle whenever an accident has happened at the establishment or while, elsewhere, the employee or worker is accomplishing his/her tasks.

(ii) By when to report

Within 48 hours of the occurrence

(iii) To whom to report

The National Social Security Fund (NSSF) at the MLVT or any other department in charge of labor affairs.

(iv) Who is to report

Employer

(3) Investigation by the administration upon an occupational accident

(i) What to be investigated

Upon the Employer's report, the MLVT conducts an investigation to prevent future recurrence (Whenever an occupational accident has happened, the employer is required to notify the MLVT of the accident in writing within 48 hours. (*Labor Management Manual, Cambodia, 2nd edition, JETRO, October 2013*))

The subjects of the investigation are the following:

- i. Nature of the accident (whether with deaths, major or minor injuries, etc.)
- ii. Victim's personal datary (Name, occupation, nationality, family situation, whether or not s/he has been trained in OSH)
- iii. Date/time of the accident
- iv. Testimonies of witnesses
- v. Opinions of the employer and workers' representatives
- vi. Cause of the accident
- vii. Measures taken/to be taken to prevent recurrence

(ii) Who is to investigate, etc.

Labor inspector

(Source on 9.6. (1): *Labor Management Manual, Cambodia*, 2nd edition, JETRO, October 2013)

(Source on 9.6. (2) & (3): *Safety and Health Management in the Construction Industry Overseas*, JCOSHA, May 2015, partly revised)

9.7. Compensation for Victims by Occupational Accidents

(1) Insurance that covers the death, injury, or illness of victims

(i) Whether or not to get insured

Chapter 9 of the Labor Law prescribes compensation for occupational accidents. In addition, to clarify this provision, the MLVT issued a ministerial ordinance No. 243 *Notice on Compensation for Occupational Accidents and Disabilities* on September 10, 2002.

The Law on Social Security" established under this Notice is a law prescribing the systems of occupational accident insurance, pension, and employee medical care plans for workers employed in the private sector subject to the current Labor Law that are operated under the National Social Insurance Fund and to which all employers, employees, and workers are required to subscribe. Although a "Cabinet Order on the Establishment of the National Social Security Fund (NSSF)" that sets out the details of how this system would work was issued in 2007, the government plans to expand the implementation of the system in phases and the one currently most advanced of those systems and plans is the system of compensation for occupational accidents.

A company that hires eight employees or more is required to register their employment status with the NSSF, pay the first insurance premiums within 30 days of the registration, and tell the employees their registration numbers.

(Source on 9.7. (1): *Labor Management Manual, Cambodia*, 2nd edition, JETRO, October 2013)

(ii) What insurance to subscribe to

A worker's insurance consists of two parts: *employment insurance* and *occupational accident insurance*. The employment insurance has two functions: (1) Insurance against unemployment in the form of allowance paid to unwaged workers and (2) employment insurance to support employers saving them laying off workers.

Around 2008, health insurance in the Kingdom of Cambodia was operated by private insurance companies. Aware of the importance of health insurance, the government developed a Master Plan for Social Insurance with the technical support of the World Health Organization (WHO). The Plan aims at multiple objectives including the implementation of a stable financing mechanism, the promotion of equity in access to health care, facilitating rational household expenditure on health, the promotion of improvement in the health care delivery system. The Plan recommends that approach should be pluralistic through the establishment of different types of schemes for the

different population sectors. This approach comprises:

- (a) Compulsory social health insurance through a social security framework for the public and private salaried sector workers and their dependents, through addition of health care to the Social Security Law administered by the National Social Security Fund;
- (b) Voluntary insurance through the development of community based health insurance (CBHI) schemes sponsored by different development partners, national non-government organizations in the initial stage and health care providers for non-salaried workers' families that can contribute on a regular basis. Social health insurance for this population sector should include all family members registered in the Cambodian Family Book.
- (c) Social assistance through the use of equity funds and later government funds to purchase health insurance for non-economically active and indigent populations. The master plan expects that, for social health insurance to reach universal coverage, it will take 8 to 10 years, depending on the growth of the economy and the development of institutions to manage social health insurance.

(iii) Outline of insurance

Outline of benefits

- i. For all accidents involving workers while at work to fulfill their duties or on the way to and from work as well as all illnesses caused by work, regardless of whether they involve suspension from work, medical insurance benefit covers all medical expenses at hospital and transportation expenses.
- ii. For an occupational accident at or while to and from work or an illness caused by work that involves temporary disabilities, a daily allowance equivalent to 70% of the victim' average daily wage (to be calculated based on the victim's average wage in the last 6 months) is paid for up to 180 days.
- iii. For all accidents involving workers while at work to fulfill their duties or on the way to and from work as well as all illnesses caused by work involving continued disabilities, life-long compensation is paid.
- iv. Funeral benefit covers funeral expenses up to 1,000,000 riels. As surviving family benefit, lifelong compensation is paid to the dependent family, calculated based on average daily wage in the same manner as ii. above.

(iv) Policy holder and the insured

Policy holder: Employer Insured: Employees

(v) Who is to pay the premium

Who is to pay the premium: Employer

Amount of the premium: 0.8% of the average monthly wage of the employee (between 1,600 and 8,000 riels)

(2) Settlement with the victim of an occupational accidents

Upon the victim's request, the NSSF at the MLVT may study the case and arrange a settlement.

(Source on 9.7.: *Safety and Health Management in the Construction Industry Overseas*, JCOSHA, May 2015.)

9.8. Education and Training on OSH

Department of OSH had conducted three OSH training courses for factories physicians (2 courses in 2003 and 1 course in 2004). 143 physicians had participated in these training courses. The training courses provided participants with OSH management and implementation of the provisions of Laws and all Prakas issued by the Ministry.

Many inspectors have also carried out OSH training for home workers, construction workers, farm workers and farmers in cooperation with workers, employers, NGOs, and the ILO. Participatory training programs like WISH (Work Improvement in Safe Home) for home workers, WISCON (Work Improvement in Small Construction) for construction workers in small construction sites, and WIND (Work Improvement for Neighborhood Development) for farm workers and farmers have been applied actively and widely. After the training, the inspectors in cooperation with other OSH trainers have organized follow-up visits to the previous trainees and achievement workshops to exchange improvement experiences among workers. (Please see Annex 4 for statistics).

(Source on 9.8.: "The Overview of Occupational Safety & Health in Cambodia, April 2011" by MLVT)

9.9. Structure for Safety Management (Sharing of Responsibility) and Various Qualifications at the Business Office and Project Sites

(1) Safety and health management system at the business office

Regular safety patrols are carried out by the construction department and safety environment division of the head office/overseas branch offices. In addition, a safety and health committee is set up at the local office (The members being the head of local office, all project site managers, and all subcontractors) and conduct regular safety patrols.

(2) Safety and health management system at project sites

The safety officer assigned to the project site manages safety and gives instructions. Every month, s/he holds a safety conference/ council and conducts a safety patrol. Also, depending on the situation, s/he organizes training for heavy machinery operators, drivers and workers from time to time

(3) Qualifications

(i) Qualification titles

Crane operation, etc. Operation of vehicle-like construction machine

(ii) Nature of qualifications (Types of jobs requiring qualifications: the types, names, length of training for qualifications equivalent to licenses/skill training in Japan)

- Mobile crane operator (lifting a load of 4 t or more: license)
(Lifting a load of less than 5 t: skill training)
- Vehicle-type construction machine operator (machine weight of 3 t or more: skill training)
(Machine weight of less than 3 t: Special education by the employer)
- Rigger (More than 1 t: skill training)
(Less than 1 t: special education by the employer)

The above licenses and skills classes will be held at the Heavy Equipment Center of the Ministry of Public Works and Transportation. Although there is no special qualification for electric works, the company is required to be registered with EDC (local power company).

9.10. Administrative Punishments, Social Sanctions, etc. Imposed after Occupational Accidents

(1) Administrative punishments imposed on the primary contractor

When, as a result of the inspection, found in violation of Article 375 of the Labor Law on workers' safety and health, the company's representatives, directors, managers, or relevant executives are imposed a fine equivalent to 30 to 120 days' wages or a punishment such as the suspension of work. In the worst case, they may be prosecuted.

(2) Administrative punishments imposed on subcontractors

There is no provision that distinguishes administrative punishments between the primary contractor and subcontractors.

(3) Other social sanctions

None

9.11. Situation of Occupational Accident Prevention Organizations

(i) Name of the organization

The Building and Wood Workers Trade Union Federation of Cambodia (BWTUC)

(ii) Outline of the organization

Established in November 2009

Main activities:

- i. Promote OSH activities with the cooperation of the MLVT;
- ii. Strengthen compliance with the Cambodian Labor Law;
- iii. Organize seminars on OSH in cooperation with international organizations;
- iv. Study working conditions and draw up evaluation reports jointly with international

organizations;

(Source of Section 9.7.-9.11.: *Safety and Health Management in the Construction Industry Overseas*, JCOSHA, May 2015)

10. THAILAND

10. Basic Information on OSH in Thailand

10.1. Profile of Thailand

Since inaugurated in August 2011, the Yingluck administration tried to strengthen the Thai economy by, as it promised during the election campaign, hiking the minimum wage throughout the country, raising starting wages for college graduates, offering farmers to buy rice at prices higher than market prices and giving a tax rebate to first-time car buyers, etc. Meanwhile, the country was hit by unusual rainfalls starting July that caused floods over large areas in northern and central Thailand, inundated industrial parks around Bangkok and gave significant damage to the country's economy and, through supply chains, to that of the surrounding countries and Japan. The country's economic growth in 2011, that had been estimated to be 3.4 to 4.0% otherwise by the National Economic and Social Development Board (NESDB), ended up around 0.1%. As efforts for recovery and restoration from the damage of floods progressed, the country's economy improved driven by domestic demand, and the growth rate for 2012 reached 7.3%. In 2013, however, as car purchases reduced with the end of tax rebate and cycle of investments for recovery and restoration the disaster ended, domestic demand that drove the growth throughout the previous year lowered and the growth rate ended up at 2.9%.

In May 2014, a military coup happened and the National Council for Peace and Order (NCPO), mainly represented by the military, assumed the full power of the government, and political turmoil followed, and the growth rate in 2014 ended up at 0.9%. For 2015, NESDB estimated the growth rate initially between 3.0 and 4.0%, but in November the same year, revised it downward to 2.9%. For 2016, the board expected it to improve to 3.0 to 4.0%.

(Source: Basic Data, Kingdom of Thailand, MOF, partly revised)

10.1.1. Country Name

Kingdom of Thailand

10.1.2. Area & Population

Area : 513,120 km² (About 1.4 times of Japan)

Population : 66.4 million (National Census in 2010)

10.1.3. Capital City, Latitude & Longitude

Capital City: Bangkok

Latitude: 13.45N Longitude: 100.32E

10.1.4. Feature of Meteorology, Annual Temperature

in Bangkok Max. Temperature: 34.9 deg C Min. Temperature: 20.8 deg C

Feature of meteorology: Tropical monsoon / Rainy season from May to September / Dry season from November to April

10.1.5. Religion & Language

Religion: Buddhism (94%), Islam (5%)

Language: Thai

10.1.6. Currency

Baht

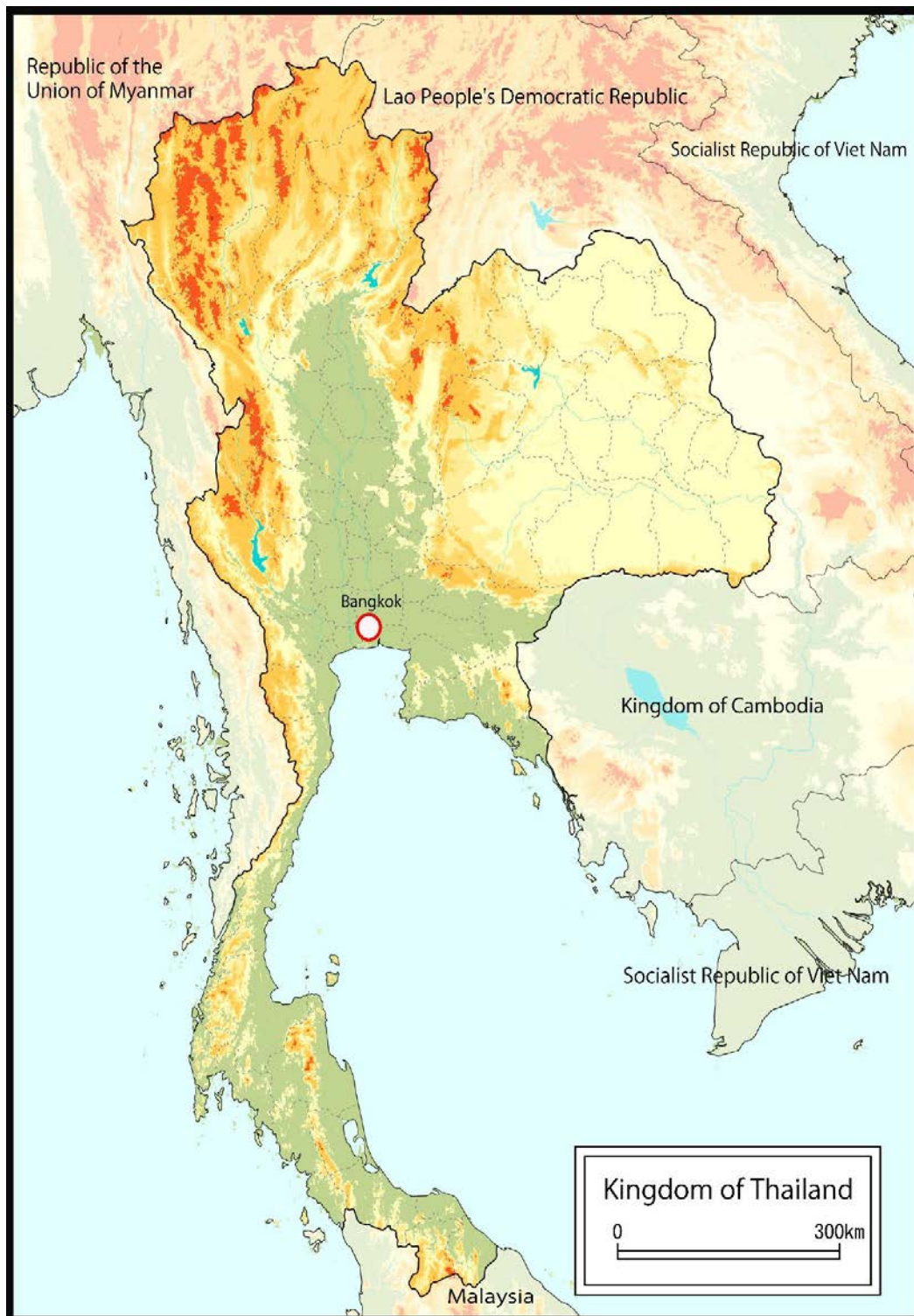


Figure 10.1 Map of Thailand (by JICA Study Team)

10.1.7. Number of Workers

All Industries : 36.503 million
 Agriculture & Fishery : 129.04 million (35%)
 Construction industry : 2.537 million (7%)

Table 10.1 Population in each province in Thailand (source: Census of Thailand in 2015)

(Unit: thousand)

Province	Population (FY 2015)	Province	Population (FY 2015)
Bangkok (Krung-thep-maha-nakhon)	5,696	LOEI	639
NAKHON RATCHASIMA	2,629	SARABURI	638
UBON RATCHATHANI	1,857	SUKHOTHAI	602
KHON KAEN	1,798	SA KAEO	557
CHIANG MAI	1,728	PHICHIT	546
BURIRAM	1,585	YASOTHON	540
UDON THANI	1,575	TAK	618
NAKHON SI THAMMARAT	1,553	CHANTHABURI	531
SAKON NAKHON	1,143	PRACHUAP KHIRI KHAN	535
SISAKET	1,469	SAMUT SAKHON	545
CHONBURI	1,455	PHATTHALUNG	523
SONGKHLA	1,411	NONG KHAI	520
SURIN	1,395	NONGBUA LAMPHU	510
SAMUT PRAKAN	1,279	YALA	518
CHIANG RAI	1,278	CHUMPHON	506
NONTHABURI	1,194	PHAYAO	483
CHAIYAPHUM	1,138	NAN	480
ROI ET	1,308	PRACHINBURI	482
NAKHON SAWAN	1,072	PHETCHABURI	479
PATHUM THANI	1,094	UTTARADIT	460
SURAT THANI	1,047	PHRAE	452
PHETCHABUN	997	KRABI	462
KALASIN	985	BUENG KAN	421
MAHA SARAKHAM	965	LAMPHUN	406
NAKHON PATHOM	899	PHUKET	387
PHITSANULOK	863	AMNAT CHAROEN	376
RATCHABURI	868	MUKDAHAN	348
SUPHANBURI	850	CHAINAT	332
KANCHANABURI	882	UTHAI THANI	331
PHRA NAKHON SI AYUTTHAYA	808	SATUN	316
NARATHIWAT	783	ANG THONG	283

LOPBURI	759	PHANG-NGA	264
LAMPANG	752	NAKHON NAYOK	259
KAMPHAENG PHET	730	MAE HONG SON	274
NAKHON PHANOM	715	TRAT	229
CHACHOENGSAO	701	SINGBURI	211
PATTANI	694	SAMUT SONGKHRAM	194
RAYONG	689	RANONG	188
TRANG	641	Total	65,730

10.1.8. GDP

Nominal GDP : 365 billion US\$

GDP per capita : 5,382 US\$

Growth rate of real GDP: 6.4%

10.1.9. Past Investment Record

① FDI from Japan: 348.43 billion bahts (2012)

② Number of Corporate Investment : 342 cases (2010)

Investment amount : 100.35 billion bahts (2010)

(* approval basis of the Investment Committee in Thailand)

Number of registered Japanese firms on Chamber of Commerce in Bangkok: 1,327 (April 2011)

10.1.10. Past ODA Record from Japan (About 1.4 times of Japan)

Thailand is shifting from a recipient country to a donor country.

① Japanese Yen Loan: 23.94 billion Yen (FY 2010)

② Japanese Grant Aid: 1,150 million Yen (FY 2010)

③ Technical Cooperation: 2,798 million Yen (FY 2010)

(Source on 10.1: *Safety and Health Management in the Construction Industry Overseas*, JCOSHA, May 2015.)

10.2. Administrative Organizations on OSH

(1) Related organizations and their roles

(i) Relevant Ministry: Ministry of Labor

The Ministry of Labor (MOL) of Thailand is a government agency that plays an important role in protecting working people including OSH issues. The MOL is responsible for addressing labor-related legal issues by drafting, enacting and enforcing policies and laws/regulations, while promoting safety, health, and welfare of working people. Laws and regulations on OSH and relevant standards are drafted, enforced, and complied with through monitoring and supervision. At the same time, the ministry has vigorously worked to improve working conditions and environment to ensure workers' safety and health at workplace. In addition, it has developed recovery and rehabilitation programs to protect workers from occupational injuries. The services in charge of OSH under the MOL are the Department of Labor Protection and Welfare (DLPW) and the Social Security Office (SSO).

(ii) Relevant Department: Department of Labor Protection and Welfare

The Department of Labor Protection and Welfare (DLPW) has been given authority to conduct researches and surveys to promote OSH including development of abilities.

The organs directly responsible under DLPW is said to be the Occupational Safety and Health Bureau (OSHB). The OSHB is a new organ that integrated and restructured existing two organs, the Occupational Safety and Health Inspection Department (OSHD) and the National Institute for the Improvement of Working Conditions and Environment (NICE) and launched anew under the DLPW. The purpose of the OSHB is to help the OSH administration fulfill its mission and have its services shared between 12 Regional Occupational Safety and Health Centers to make them work more effectively and efficiently, reduce redundancy, help them get networked so that, all in all, the national policy objective "Decent Safety and Health for Workers" is ultimately achieved. The establishment of the OSHB was announced in the Official Gazette and put into force as of December 11, 2009.

(iii) Relevant Bureau: Occupational Safety and Health Bureau (OSHB)

The OSHB has the following authorities and functions:

- 1) Develop and establish OSHS.
- 2) Monitor and supervise employers, workers, related individuals, legal personnel, and related organizations to ensure their compliance with OSH-related laws and regulations.
- 3) Provide services relating to the supervision of authorities, registration, and activities or services prescribed under OSH-related laws, regulations, and standards.
- 4) Develop systems for the protection, supervision, and management of OSH.
- 5) Develop information technology systems and networks for OSH.
- 6) Conduct researches and surveys to identify problems related to OSH and develop appropriate means to further develop OSH laws/regulations and standards.
- 7) Develop an OSH network and promote participation of all actors in it.
- 8) Adjust or support the functions of the relevant agencies.

OSH services are provided through the 12 regional OSH centers established in the capital and provinces. In addition, 76 provincial labor protection and welfare offices work to ensure OSH administration and address legal issues at the provincial level. The Bangkok Metropolitan Area (BMA) is allotted with 10 labor protection and welfare offices to handle its workload.

(iv) Social Security Office (SSO)

Established by the Social Security Act of 1990, the SSO manages the Social Security Fund (SSF) operated to ensure Thai people's safety and stability in their lives. The SSF covers several areas: illness, pregnancy, disability, death, allowance for children, advanced age, and unemployment. Workers in Thailand are eligible for compensation covering injuries, illnesses and deaths both in and outside the workplace.

In addition to this, as a contribution to social security, employers are required to pay a certain percentage of workers' annual remuneration to the Workmen's Compensation Fund (WCF). The WCF was founded in 1974 to protect workers who are victims of occupational accidents and injuries in terms of compensation and other benefits. In the early stages, the fund covered only companies hiring 20 or more workers in Bangkok. Later, from 1976, the Fund began to expand the coverage to wider areas to cover eventually all provinces of the country in 1988. In 1990, the WCF was transferred to the SSO. In 1993, it expanded the coverage to companies with 10 or more workers and, in April 2002, to companies with one or more workers across the country.

(v) Workmen's Compensation Fund Office (WCFO)

A unit within the SSO, the WCFO fulfills various roles and responsibilities under the Workers' Compensation Act of 1994, including analysis of the rate of payment to the WCF, management of worker's and employer's payment and their claim for compensation, promotion of OSH, and other duties prescribed by the Act.

The WCF provides substantial financial support to OSH programs: According to Article 28, Chapter 3, of the Workers' Compensation Act, the WCF is authorized to use up to 22% of the interest it earned for OSH programs and rehabilitation programs for injured workers. Support for OSH programs includes funding for researches, seminars and training courses conducted by the government's, employers', and workers' organizations and universities. The choice of OSH programs to be subsidized is the responsibility of a tripartite committee placed within the WCF.

Other governmental ministries and agencies involved in OSH include:

(vi) Ministry of Public Health

The Ministry of Public Health (MOPH) is a primary government agency responsible for the country's public health issues. The most important of the MOPH's roles and functions is to provide OSH services in all industrial sectors through technical structural units and healthcare network systems.

(vii) Ministry of Industry

The Ministry of Industry (MOI) permits the establishment and operation of factories, governs laws /regulations on industrial safety, conducts inspections to ensure legal compliance, and renews permits. The department governing OSH is the Department of Industrial Works (DIW). Through inspections, the DIW plays a critical role in ensuring the safety of industrial activities for workers and the environment. The administrative services responsible for this task include the Safety Engineering Bureau, the Hazardous Substances Control Bureau, and five Industrial Clusters Bureaus.

(2) Inspections of Workplaces by the Administration

(i) Outline of inspection

Articles 139 to 142 of the Labor Protection Act of 1998 on the responsibilities and authorities of labor inspectors include the provisions on inspections.

(ii) Who is to perform inspection

Labor inspectors

(iii) Response to comments on findings (Report on actions taken, amounts of fines, etc.)

In Thailand, the employer is required to submit a safety report every three months to the competent DOL office. In 2012, a project site that had failed to submit the report was inspected by an inspector who passed by.

(Source for 10.2 (1): *Overseas Situation/International Cooperation, OSH systems by country, Thailand*, Japan Industrial Safety and Health Association Website (July, 2015);

(Source for 10.2(2): *Safety and Health Management in the Construction Industry Overseas*, JCOSHA, May 2015)

10.3. Laws and Regulations on OSH

(1) Names, overviews, and nature of the OSH-related laws, regulations, and ordinances and their equivalents

(i) Major laws and regulations related to OSH in Thailand

Labor Protection Act of 1998, Workers Protection Act of 2008, and Thai Civil Code and Commercial Code, Volume III, Chapter 6 Provisions on Employment. These acts stipulate labor contracts, dismissal, wages, overtime, holiday work, extra pay, young workers, female workers, minority workers, foreign workers, safety and health, employment regulations, etc.

Under Chapter 8 OSH and the Environment of the Labor Protection Act, several ministerial ordinances on OSH were enacted and enforced. An important milestone for OSH-related laws and regulations in Thailand is the promulgation of the Occupational Safety and Health Act of 2011 (commonly known as "OSH Act").

(ii) OSH-related ordinances of the Ministry of Interior (MI) (some of ministerial ordinance involving the construction industry)

- Ministerial ordinance on Guideline for drafting safety plans for the construction industry (2008)
- Ministerial ordinance on OSH management at construction sites (2008)
- Ministerial ordinance on OSH management of crane and derrick operations (2009)
- Ministerial ordinance on OSH management of electricity and voltage (2010)
- Ministerial ordinance that identifies operations potentially hazardous to workers' health or body and Ministerial ordinance and determining diseases caused by such operations (2005)

OSH-related laws under the jurisdiction of other ministries and agencies are as follows:

- Factory Act (1992) under the jurisdiction of the MOI
- Hazardous Materials Act (1992), No. 2 and No. 3 as amended, under the joint jurisdiction of the MOI, MOPH, and others
- Public Health Act (1992) under the jurisdiction of the MOPH
- National Environment Conservation Act (1992), under the jurisdiction of the Ministry of Natural Resources and Environment (MNRE)
- Building Regulation Act (1979), No. 2 to No. 4 as amended, under the jurisdiction of the MI
- Nuclear Energy Peaceful Use Act (1961), No. 2 and No. 3 as amended, under the jurisdiction of the Ministry of Science and Technology
- Present Ministry of Science and Technology
- Accident Prevention and Mitigation Act (2007), under the jurisdiction of the MI
- Other related local laws

- (2) Scope of responsibilities between the primary contractor and subcontractors prescribed by laws, regulations, etc.

There is no division of responsibilities legally defined between the primary contractor and subcontractors

(Source for 10.3: *Overseas Situation/International Cooperation, OSH systems by country, Thailand, Japan Industrial Safety and Health Association Website and Safety and Health Management in the Construction Industry Overseas, JCOSHA, May 2015*)

10.4. Submission of OSH-related Documents to the Administration Body

The Ministerial Ordinance on Guideline for Preparation of Safety Plan in the Construction Industry (2008) includes OSH-related instructions on scaffold installation, but there is no requirement for the contractor to submit plan documents.

10.5. Contractor's Duties upon Occurrence of Occupational Accidents

- (1) Duties to notify the administration of an occupational accident

- (i) Whether and what to report

The contractor is required to report any accident in principle when it involves suspension from work.

- (ii) By when to report

Within seven days of the accident, but immediately in case of a serious one.

- (iii) Whom to report to

Relevant office of the Ministry of Labor (MOL).

- (iv) Who is to report

Primary contractor.

- (2) Investigation by the administration upon an occupational accident

- (i) What to be investigated

If the accident is a serious one, there is an investigation by the administration.

- (ii) Who is to investigate, etc.

Relevant office of the MOL.

10.6. Compensation for Victims by Occupational Accidents

- (1) Insurance that covers the death, injury, or illness of victims

- (i) Whether or not to get insured

There is a compensation plan under the Workers' Compensation Act of 1994 (under the jurisdiction of the Social Insurance Office)

The contractor is required to get insured.

(ii) Name of insurance

There is Social Welfare and Health Insurance.

(iii) Outline of insurance

- Suspension from work for 3 or more consecutive days: 60% of the monthly wage is paid for the period of up to 1 year.
- Damage to body tissue: 60% of the monthly wage is paid for the period of up to 10 years (according to the degree of damage).
- Physical malfunction: 60% of the month wage is paid for the period of up to 15 years (according to the degree of malfunction).
- Death or missing: 60% of the monthly wage is paid for the period of up to 8 years, plus a funeral expense of up to 100 times the minimum daily wage.

(iv) Policy holder and insured

Employee

(v) Who is to pay the insurance premium

Both the employers and the employee pay 5% of the basic wage.

(2) Settlement with victims upon occupational accidents

Upon the victim's request, a section of the MOL may study the case and arrange a settlement.

10.7. Structure for Safety Management (Sharing of Responsibility) and Various Qualifications at the Business Office and Project Sites

(1) Safety and health management system at project sites

The contractor is required to assign the prescribed number of safety officers to the project site according to the number of workers (See Table below).

Table 10.2 Number of safety officers to be assigned by number of workers (Unit: Number of persons)

Number of workers	Level of Safety Officer				
	Head Man Level (completing 12 h of education)	Technique Level (completing 12 h of education)	High Technique Level (completing 180 h of education)	Professional Level (completing bachelor's course in OSH)	Management Level (completing 12 h of education)
~19	1				1
20-49	1	1			1
50-99			1	1	1
100~				1	1

(2) Qualifications

(i) Qualification titles

Qualifications required of safety officers prescribed by the Notification of the Ministry of Labor and Social Welfare (MLSW) *Employee's Occupational Safety* dated March 31, 1997

i) Qualifications of safety officers of working-level

- A) A person selected from among employees of working level as representatives of the employees
- B) A person who has successfully completed OSH training courses (30 h) prescribed by the Director
- C) A person appointed by the employer as a safety officer of working-level

ii) Qualifications of safety officers of foreman level

- A) An employee responsible for properly managing, supervising, and directing operations at each workplace
- B) A person appointed by the employer as a safety officer of foreman level

iii) Qualifications of safety officers of senior executive level

- A) An employee at a level equal to or higher than department head of the establishment (e.g. Factory director)
- B) A person who has successfully completed OSH training courses (12 h) prescribed by the Director
- C) A persons appointed by the employer as a safety officer of senior executive level

iv) Qualifications of safety officers of professional level

- A) A person who has completed a bachelor's or higher course in OS or an equivalent course including OSH and work environment.
- B) A person who has completed a course for a senior professional license *and* has completed, and passed the final exam of, a training course prescribed by the Director that is provided at a workplace accredited by the Department of Labor Welfare and Protection.
- C) A person who has completed, and passed the final exam of, an OSH training course prescribed by the notification of the MI *Employees' OSH* dated May 6, 1985 *and* has completed, and passed the final exam of, at least one training course prescribed by the Director.
- D) A person who has worked as a safety officer of working level for five years or more with an experience of reducing the annual rate of occurrence of accidents by 10% or more in the past two years *and* has completed, and passed the final exam of, a training course prescribed by the Director that is provided at a workplace accredited by the Department of Labor Welfare and Protection (DLWP).

(ii) Nature of qualifications (types of jobs requiring qualifications: the types, names, lengths of training for qualifications equivalent to licenses/skill training in Japan)

i) Safety officer

ii) Crane operation: Operators (Skill training: 12 h), slingers (Skill training: 12 h), watchmen

(Skill training: 18 h), signal men (Special education: 6 h)

iii) Workers under oxygen-deficient conditions (Skill training: 12 h)

10.8. Administrative Punishments and Social Sanctions, etc. Imposed after Occupational Accidents

(1) Administrative punishments imposed on the primary contractor

Depending on the inspection results, the contractor is required to submit a report or suspend work. In the worst case, he/she may be prosecuted.

(2) Administrative punishments imposed on subcontractors

Depending on the inspection results, subcontractors may be imposed Administrative punishments

(3) Other social sanctions

None

10.9. Situation of Occupational Accident Prevention Organizations

(A) Name of organizations

Safety and Health at Work Promotion Association (SHWA)

(B) Outline of the organization

- The SHWA held the 1st general assembly on 22 October 1987 and appointed a board of directors made of 19 members
- The association has 1760 annual ordinary members and 594 annual corporate members.
- Activities
 - A) With the cooperation of the DLWP, provides an OSH training course.
 - B) In collaboration with international organizations, organizes OSH seminars.
 - C) Jointly with the MOL, organizes a nationwide safety weekly every year.
 - D) Publishes books, videos, posters, etc.

(Source for 10.4.- 10.9.: *Safety and Health Management in the Construction Industry Overseas*, JCOSHA, May 2015.)

11. PHILIPPINES

11. Basic Information on OSH in the Philippines

11.1. Profile of the Philippines

The Philippines' economy has been doing well in recent years: After peaking at 7.6% in 2010, the real GDP growth rate slowed down slightly to 3.6% in 2011 due to the global economic downturn, but reached again high rates of 6.8%, 7.2 %, 6.1%, respectively, from 2012 to 2014.

Under the effect of global crude oil and food prices, the inflation rate hovered around a high level of 9.3% for the whole year of 2008 and had a big impact on the people's lives. However, afterward it stabilized to 3.0% in 2013 and 4.1% in 2014, which are within the range of 3 to 5% targeted by the Philippine government.

The trade structure is intermediate trade which consists in importing semi-finished assemblies of electronic equipment and exporting semiconductors, etc. after processing them. In 2014, electronic products accounted for 41.9% and 23.2% of total export value (about 61.8 billion dollars) and total import value (about 64 billion dollars), respectively. In terms of major trading partners in 2014, they were Japan (about 13 billion dollars), the US (about 8.7 billion dollars), and China (about 8 billion dollars) in exports in that order and China (about 9.6 billion dollars, 15.0 %), the US (about 5.6 billion dollars, 8.7%), and Japan (about 5.1 billion dollars, 8.0%) in imports in that order.

An important factor of the Philippine economy is that it is largely supported by remittance from approximately 102.4 million people working overseas, which accounts for over 10% of the total population. Their major destinations are the United States, the Middle Eastern countries, etc. The total remittance amounted to a record 24.3 billion dollars or so in 2014

(Source: Recent Filipino Situations and the Japanese-Filipino Relationship, MOFA, partly revised)

11.1.1. Country Name

Republic of the Philippines

11.1.2. Area & Population

Area : 299,404 km² (four-fifth of Japan)

Population : 94.01 million (Estimate value in 2010)

11.1.3. Capital City, Latitude & Longitude

Capital City : Manila

Latitude: 14.36N Longitude: 121E

11.1.4. Feature of Meteorology, Annual Temperature

in Manila Max. Temperature: 33.5 deg C Min. Temperature: 18.5 deg C

Feature of meteorology: Tropical climate with high-temperature and humidity

11.1.5. Religion & Language

Religion : Catholic (83%), Other Christianity (10%), Islam (5%)

Official language : Tagalog Official language: Tagalog & English

11.1.6. Currency

Peso (1 Peso = 2.3Yen December, 2016)

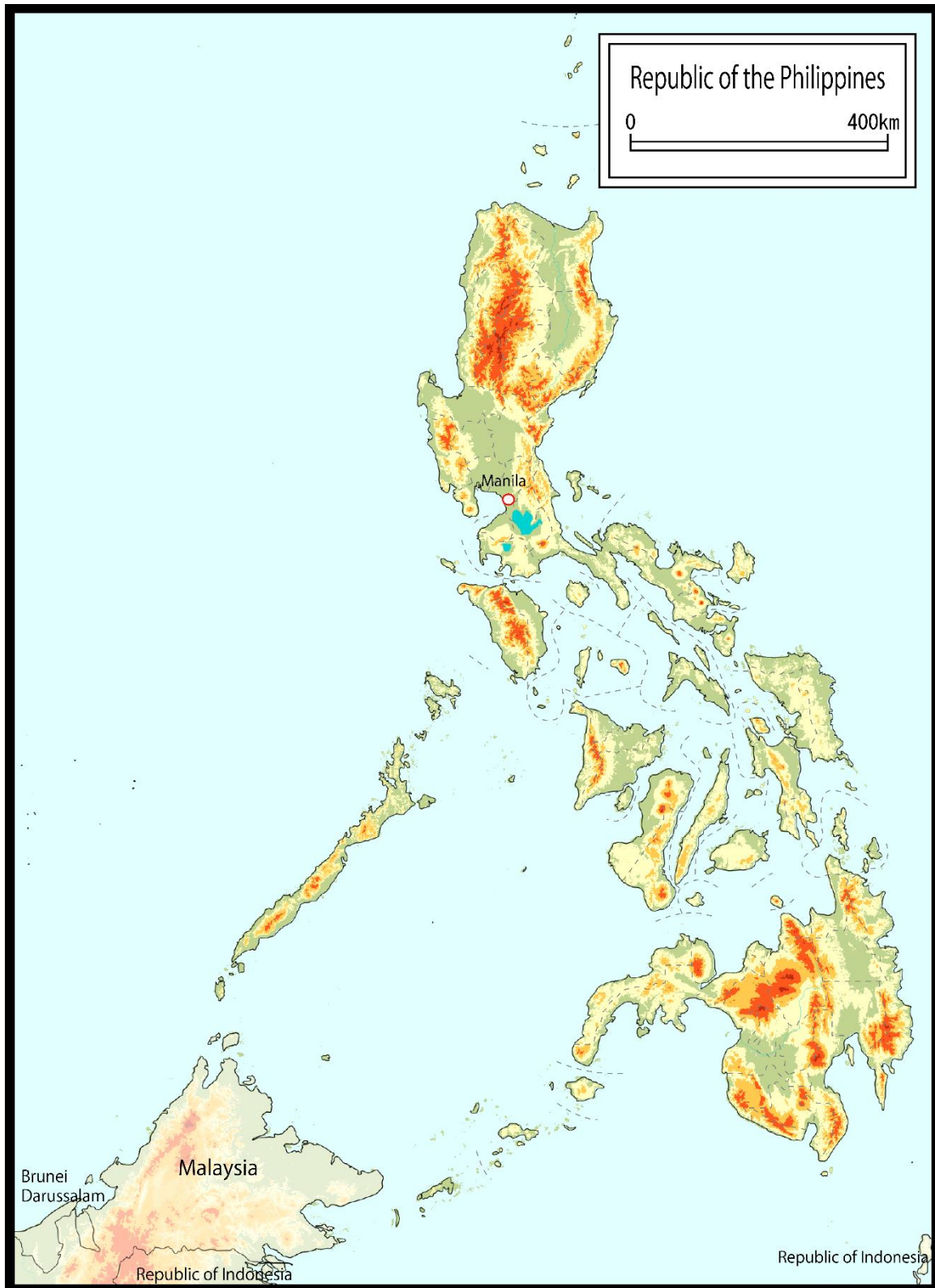


Figure 11.1 Map of Philippines (Source: JICA Study Team)

Table 11.1 List of Provinces with more than 1,000 thousand population in the Philippines)

(unit: thousand)

州	Population (FY 2010)
Cavite	3,678
Bulacan	3,292
Laguna	3,035
Pangasinan	2,957
Cebu	2,939
Rizal	2,884
Batangas	2,694
Negros Occidental	2,497
Pampanga	2,198
Nueva Ecija	2,151
Camarines Sur	1,953
Iloilo	1,936
Quezon	1,857
Leyte	1,752
Isabela	1,594
Bukidnon	1,415
Cotabato	1,380
Tarlac	1,366
Negros Oriental	1,355
Albay	1,315
Bohol	1,314
Cagayan	1,199
Maguindanao	1,174
Lanao del Sur	1,045
Davao del Norte	1,016
Zamboanga del Norte	1,011
Zamboanga del Sur	1,011
Grand Total (including all provinces in the Philippines)	100,980

(Source: Philippine Statistics Authority, 2016/05)

11.1.7. Number of Workers

All industries	: 35.509 million
Agriculture & Fishery	: 119.31 million (33.6%)
Construction industry	: 1,989 thousand (5.6%)

11.1.8. GDP (in 2013)

Nominal GDP : 272.02 billion US\$

GDP per capita : 2,790 US\$

Growth rate of real GDP: 7.2%

11.1.9. Past Investment Record

(i) FDI from Japan: 584 million US\$ (2012)

(ii) Amount of investment by Japanese companies: 32.11 billion pesos (Cumulative amount from 2009 to 2013)

((*Projects authorized by the National Statistical Review Board)

Number of Japanese companies operating: 1,171

(Source: Japan Embassy in Malila)

11.1.10. Past ODA Record from Japan

(i) Japanese Yen Loan : 2290.38 billion Yen (total sum until FY 2012)

(ii) Japanese Grant Aid : 261.98 billion Yen (total sum until FY 2012)

(iii) Technical Cooperation : 203.77 billion Yen (total sum until FY 2011)

(Source for 11.1: *Safety and Health Management in the Construction Industry Overseas*, Japan Construction Occupational Safety and Health Association (JCOSHA), May 2015)

11.2. Administrative Organization on OSH

(1) Organization

(i) Department: Department of Labor and Employment, DOLE

The Republic of the Philippine Constitution stipulates that "The State shall afford full protection to labor. They [all workers] shall be entitled to security of tenure, humane conditions of work, and a living wage." On the other hand, the Philippine Labor Code (1974) was revised to realize industrial peace based on full protection and employment of workers, enhancement of human resources and social justice, and was integrated with other Labor Codes and social law. The Code states that it is the responsibility of the Department of Labor and Employment (DOLE) as the government agency to establish and manage the laws, rules, and provisions related to occupational safety and health management, and enforce them at all places of employment.

Article 165 prescribes, "The DOLE is the only institution with the authority to oversee and enforce the laws and regulations, policies and programs concerning occupational safety and health management. When publicly certified, cities may supervise the industrial safety of establishments in accordance with the standards of each region."

(ii) Bureau of Working Conditions (BWC)

The BWC performs primarily policy and program development and advisory functions in the administration and enforcement of laws relating to working conditions. It oversees the implementation of standards through technical supervision of enforcement by the DOLE's 15 Regional Offices all over the country

(iii) Occupational Safety and Health Center (OSHC)

As local offices, there are 15 Regional Labor Offices nationwide with 253 inspectors (From a report issued by the Japan International Center for Occupational Safety and Health, which was merged in March 2008 with the Japan Industrial Safety and Health Association (JISHA) HA.)

-Undertakes continuing studies and researches on OSH Plans, develops and implements training programs on OSH Undertakes practical testing for safe use and sets standard specifications of PPEs.

- Monitor workers' exposure to hazardous substance and environmental conditions.

(Source for 11.2 (1) (i): *Country Report, JICA Seminar on Occupational Safety and Health Management Policy* (2004))

(Source for 11.2 (1)(ii)/(iii): Website of Department of Labor and Employment (DOLE))

(2) Outline of the organization

(i) The DOLE is required to implement the Government's policies and programs in the field of labor and employment and to serve as the policy advisor to the Government.

(ii) There are 15 Regional Labor Offices throughout the country, promoting the welfare and protection of Philippine workers both in and outside the country.

(3) Inspection of project sites by the administration

(i) Outline of inspection

Inspection of workplaces (inspector system) is carried out through the supervising activities of the DOLE. In the Philippines, it is only the DOLE inspectors who have the authority to supervise workplaces and implement programs to enforce and supplement labor standard. As of 2015, the number of labor inspectors had not increased from 253, which required each inspector to conduct inspection at a rate of 1.5 companies in 4 weekdays.

Field inspection is a system based on Article 129 of the Labor Code (Labor Standards Act). The 253 inspectors mentioned above are assigned to 15 regional labor offices nationwide and handle 90,000 cases of supervision and guidance per year. After conducting inspection and supervision, they take administrative dispositions such as corrective recommendation, order to suspend the use, etc. regarding cases of incompliance with laws (Normally immediate judicial dispositions are not taken). A grace period of 5 days at the shortest is granted for improvement and is extended as necessary.

The subjects of investigation during the inspection include:

- In terms of general safety and health management supervision, work environment, in particular safety and hygiene in the workplace, such as workplace location, machine handling not subject to technical safety supervision, air volume in the workplace, ventilation, lighting, handling and storage of equipment/devices, work procedures;
- In terms of technical safety supervision, the safety of machines and devices such as boilers, pressure vessels, internal combustion engines, electrical equipment, elevators, and hoisting machines.

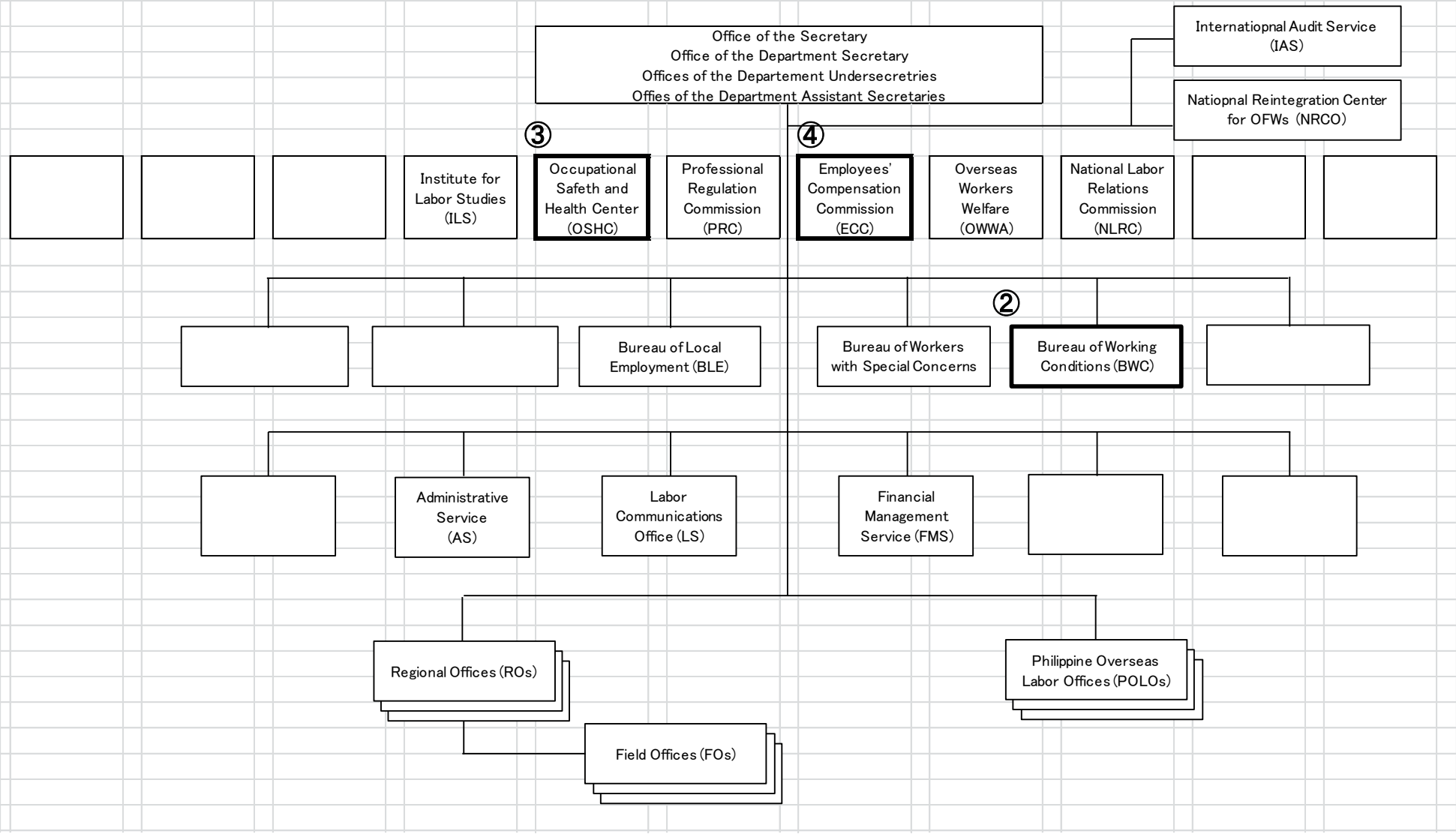


Figure 11.2 Organizational chart of OSH related department, Department of Labor and Employment
(Source: Website of DoLE)

(ii) Executor of inspection

Labor Inspector

To become a labor inspector, one must be a graduate of a 4-year (5 -year for engineering, pharmaceutical science, and agriculture departments, 8-year for law faculty, and 9-year for medical departments) college who passed a national examination.

Training : The period of training, mainly classroom lecture and OJT, is 4 years, during which each student is paid \$300/month.

Specialization : The students are trained in two fields of specialties: General inspection (In addition to working conditions such as minimum wage, working hours, vacation, they are in charge of safety and health management) and specialized inspection (Fields requiring expert knowledge and skills on boilers, cranes, elevators, construction safety, machine safety, etc.)

Priority in subjects of inspection

- i Workplaces about which complaints have been lodged
- ii Workplaces with imminent danger or workplaces with frequent accidents, illness, or injuries
- iii Dangerous workplaces
- iv Construction sites and offices
- v Workplaces that employ women/child workers

(iii) Response to findings (Reports on actions taken, degree of fines, etc.)

After responding to the comments of the DOLE on findings, the contractor is required to report the actions taken to the Philippine Contractor Accreditation Association (PCAB). The employer must take appropriate measures to protect workers and keep such measures taken until risks are removed or dealt with. If s/he does not comply, the employer will be punished under the existing labor laws.

(Source for 11.2 (2) & (3): *Safety and Health Management in the Construction Industry Overseas*, JCOSHA, May 2015, partly revised.)

11.3. Laws and Regulations on OSH

- (1) Names, overviews, and nature of the OSH-related laws, regulations, and ordinances and their equivalents

- (i) Labor Code

The Philippines' Labor Code is a collection of laws, regulations, rules, and principles that govern national policies on labor and employment. The Code is comprised of rules on workers' pre-employment status, human resources development plan, employment conditions, Safety and Health management, social welfare, labor relations and post-employment status.

The Labor Code requires the employer, at all workplaces, to establish and implement mandatory occupational safety and health standards that reduce hazards and minimize environmental pollution and update existing plans and propose new plans that ensure safe and healthy working conditions.

To ensure safety and health management at workplaces in the Philippines based on the authorities granted to the DOLE under the Labor Code, occupational safety and health standards and regulations were promulgated. Among these are *Rule 1000 General Provisions*, *Rule 1040 Safety and Health Committee*, *Rule 1050 Occupational Accidents/ Reports and Archive on Occupational Diseases*, *Rules 1060 Facilities on Workplace*, *Rule 1070 Occupational Health and Working Environment Management*, *Rule 1120 Hazardous and Harmful Work Process*, *Rule 1410 Safety at Construction Sites*, etc.

Regulations and rules on construction activities in general such as execution of construction work and licenses, approvals, etc. that need to be obtained before starting construction work are stipulated by the *Building Standards Act*. In addition to compliance with the *Building Standards Act*, construction contractors are required to ensure safety management on construction sites and comply with and implement the *Guidelines on Occupational Safety and Health Management* prescribed by the DOLE Ordinance No. 13 in 1998. Further, qualifications and conditions required of construction companies are stipulated by the *Construction Industry License Act*.

The Bureau of Working Conditions (BWC) is responsible for implementing continuous programs to improve the supply and abilities of manpower meeting prescribed standards, either directly or through certified training institutions.

The DOLE strictly enforces Occupational Safety and Health Standards through regional offices. Under Article 1005 which was specially revised, it forces employers, workers, and other parties concerned to implement occupational safety and health management as legal obligations and, under Article 1410, enforces construction safety. Through the BWC, the DOLE issues a code on occupational safety and health management practices for the construction industry.

- (ii) Occupational Safety and Health Standard (OSHS)

Having passed Congress in 1978, the OSHS has been enforced at various workplaces under Article 162 of the Philippine Labor Code. The OSHS is the codification of all laws on industrial safety and all instructions regarding safety. The OSHS is also a series of legally binding regulations, including management requirements, general safety and health regulations, technical safety regulations, and other measures on occupational safety and health management designed to protect workers from the

risk of injury, illness and death by placing workers under safe and healthy working conditions and working environment. Although workplaces in the land transportation, air transportation, and shipping industries are outside the scope of the OSHS, the standard is applicable to repair shops, port warehouses, and dry docks. The OSHS does not include standards on safety at mines. To further promote the implementation of the OSHS, departmental orders (DO) and memoranda circulars (MC) are issued as appropriate. DO and MC issued before 2004 are as follows.

- DO 13: Guideline for Occupational Safety and Health at Construction Sites
- DO 16 (2001): Amendment of the Guideline for the Training and Certification of Occupational Safety and Health Management Officers/Organizations (Rule 1030)

- MC02 (1998): Technical Guideline for the Classification of Hazardous Establishments, Workplaces, and Work Processes
- MC01 (2000): Guideline for Labor Environmental Evaluation
- DO 53-03: Guideline for the Implementation of Drug Use Prohibition Policies and Programs at Private Sector Workplaces
- DO 15: Regulations on Internal Combustion Engines and Power Pipelines

(2) Scope of responsibilities of primary contractors and subcontractors; Responsibility of primary contractors prescribed by law

General responsibility

- Provide a workplace free of hazardous situations.
- Provide all workers with complete safety education.
- Comply with prescribed standards.
- Use only certified heavy machinery/equipment.
- Report all dangerous work at one's workplaces.
- To protect workers, use all safeguards and safety devices properly according to the OSHS.
- Follow the employer's instructions under the OSHS.
- Comply with general construction safety standards such as Article 1410 of the OSOS.

(Source for 11.3 (1) (a) & (2): *Safety and Health Management in the Construction Industry Overseas*, JCOSHA, May 2015.)

(Source on 11.3 (1) (b): *Country Report, JICA Seminar on Occupational Safety and Health Management Policy* (2004))

11.4. Submission of OSH-related Documents to the Administration Body

(1) Whether it is mandatory to submit plan documents, etc.

The contractor must register itself at the DOLE, submit a construction safety and health plan when awarded a contract, and have it approved before starting construction

The Occupational Safety and Health Standard, Rule 1410 Safety at Construction Sites (Revised) stipulates as follows.

- (i) In excavation to a depth of 6.6 m or more, falsework shall be designed by a building engineer and approved by an appropriate agency (an architect officer of the Department of Public Works and Highways (DPWH)).
- (ii) Scaffolds made of wood/bamboo shall not exceed a height of 20 m above the ground. If the height is 10 m or more, the scaffold shall be designed by a building engineer and approved by an appropriate agency (an architect officer of the DPWH).
- (iii) If the scaffold exceeds a height of 30 m, it shall be made of metal for construction use and designed by a building engineer and approved by an appropriate agency (an architect officer of the DPWH).

(2) By when to report

An example of the documents etc. to be submitted to the DOLE regional office during the construction work is the following:

- Application for approval of the Construction Safety and Health Program (CHSP)
- Occupational Accident Report
- Quarterly safety plans reported to the BWC and the minutes of the safety committee meeting.
- Annual record on accidents/illness caused by work
- Annual report on medical care, etc.

(3) Which forms to use, etc.

- Application for the evaluation and approval of the Construction Safety and Health Program
- Application for registration of the construction site under the OSHS

11.5. Contractor's Duties upon Occurrence of Occupational Accidents

(1) Duties to notify the administration of an occupational accident

(i) Whether and what to report

Rule 1050 Notification and Keeping of Records of Accidents and/or Occupational Illnesses of the Philippine Occupational Safety Standards (OSHS) stipulates that, upon the occurrence of an occupational accident, occupational illness, and/or injury involving disabilities at work, the contractor submit a Report on Occupational Accidents/Illnesses by Employer to the Regional Labor Office on or before the 20th day of the month following the date of occurrence in the prescribed form. Likewise, the employer must submit an Annual Report on Exposure to Occupational Accidents/Illnesses whether they actually happened or not during the year. This report, which shows the frequency and gravity of occupational accidents, is used as a criterion in evaluating the safety measures taken by the company during the year.

What to report

- All occupational accidents and occupational illnesses
- Accidents such as fire, explosion, rupture, collapse, etc. of buildings, machinery, equipment, etc. (Explosion and rupture of boilers, etc., collapse of cranes, etc., fire and explosion, etc. of buildings)
- The accident report must include minimum information prescribed by DOLE, BWC, and OSHS.

(ii) By when to report

- On or before the 30th of the month following the date of occurrence
- Within 24 hours of the time of occurrence, if the accident involves death or permanent total disability
- Each business operator must submit an Annual Report on Exposure to Occupational Accidents/Illnesses by the 30th day of the month following the end of each calendar year

(iii) Whom to report to

The Regional Labor Office under jurisdiction and the BWC, DOLE

(iv) Who is to report

Who is to report: Contractor

Report form:

(2) Investigation by the administration upon an occupational accident

(i) What to be investigated

- All accidents involving death and permanent total disability are investigated by safety engineers, etc. of the Regional Labor Office within 48 hours of receiving the contractor's initial report, and a report is submitted to the BWC by the 30th day of the month following the date of occurrence.

(ii) Who is to investigate, etc.

- Who is to investigate: the government's safety engineers
- Report form: Accident Investigation Report by Government's Safety Engineers

11.6. Compensation for Victims by Occupational Accidents

(1) Insurance that covers the death, injury, or illness of victims

(i) Whether or not to get insured

Pursuant to the Presidential Decree No. 626 that came into effect in January 1975, the Workers Compensation Program was launched as a comprehensive measure to compensate workers in the public and the private sectors and their dependents for accidents they get involved at work with effective and adequate compensation under the law.

Under the supervision of the Workers Compensation Committee, an organ under the DOLE, the program is run by (i) the National Government Employees Insurance System for the public sector and by (ii) the Social Security System for the private sector.

The Workers Compensation Program applies to all employers (whether in the public or private sector) employing one or more workers (under 60 years old), regardless of their capital amount, type and nature of the business, etc., from the date they start running the business to cover all workers.

(ii) Names of insurance

- National Government Employees Insurance System (Public sector)
- Social Security System (Private sector)

(iii) Outline of insurance

- Accidents compensated for by the Workers Compensation Program
Labor-related injuries or illnesses and disabilities or death resulting from labor-related injuries or illnesses
- Forms of compensation for injuries, illnesses, disabilities or death
 - i Temporary disabilities: Payment of benefits equivalent to daily cash income
 - ii Permanent (total) disabilities: Lifelong payment of benefits equivalent to monthly cash income
 - iii Permanent (partial) disability: Payment of benefits equivalent to monthly cash income (for different durations depending on the functions disabled: e.g. 50 months for the total loss of hearing in both ears)
 - iv Death: Lifelong payment of benefits equivalent to monthly cash income to the primary beneficiary (a dependent spouse or children of age 21 or below). In the absence of the primary beneficiary, payment of a monthly pension of 1,500 pesos or more for up to 60 months to the secondary beneficiary (dependent family members such as parents) .

- v Injuries or illnesses: Payment of expenses for medical service, medical equipment, and treatment materials.

(iv) Policy holder and insured

Policyholder: Contractor (whether in the public or private sectors)

Insured: All workers under age 60 (whether in the public or private sectors)

(v) Who is to pay the insurance premium

Who is to pay the insurance premiums: Fully paid by the contractor

How much to pay:

- i Workers under the National Government Employees Insurance
 - 1% of the monthly salary, but not exceeding 30 pesos per worker
- ii Workers under the Social Security System
 - 1% of the monthly salary

(2) Settlement with victims upon occupational accidents

Disputes over occupational, accidents, etc., can be settled amicably between the parties out of court. The DOLE may act as the arbitrator for amicable settlements. If the parties cannot reach a settlement, the case is brought to a court for a binding judgment.

11.7. Structure for Safety Management (Sharing of Responsibility) and Various Qualifications at the Business Office and Project Sites

(1) Safety and health management system at the business office

Rule 1040 Safety and Health Committee of the Occupational Safety and Health Standard requires the operator to set up a Safety and Health Committee at each workplace as "a forum representing the management and workers assigned to develop, implement, and maintain measures to ensure safety and prevent accidents at workplace." Further, *Rule 1030* requires the operator to assign a safety officer to each workplace.

(i) Assignments of the Safety and Health Committee

- Develop the company's accident prevention measures
- Help the company's establishments develop accident prevention measures according to safety programs, safety practices and government regulations aimed to prevent the occurrence of accidents in the workplace.
- Hold a safety meeting at least once a month
- Examine inspection reports, results of accident investigation, implementation status of various programs
- Report the results of meetings and activities to the management
- Cooperate to the government investigators activities as necessary

- Organize and manage workers' safety training
- Develop and update emergency measures to be taken at the time of an accident (e.g. Organize an emergency action team to respond to an accident according to the emergency response manual to be issued by the establishment of the Civil Defense Bureau, etc.)

(ii) Reports to be given by the Safety and Health Committee (To the BWC through the Regional Labor Office)

- Report on the establishment of the Safety and Health Committee
- Reports on Occupational Accidents/Occupational Illnesses
- Annual report on occupational accidents, occupational illnesses, and risk data
- Annual report on health management
- Minutes of monthly meetings of the Safety and Health Committee (To be submitted quarterly)

(2) Safety and health management system at project sites

Rule 1410 Safety at Construction sites of the OSHS prescribes that, before and during construction work, the operator takes the following measures to ensure the safety of the construction site:

- Organize a safety and health committee according to this Rule of the Occupational Safety and Health Standard;
- Prevent danger to workers either by switching off live electric cables or providing barriers to prevent contact;
- Equip all machines with safety devices
- Provide workers with protective equipment
- Illuminate work areas as necessary
- Build pedestrian walkways with safety enclosure
- Build protective roofs against falling objects
- Build protection against collapse of nearby buildings
- Secure safe means of access
- Control traffic
- Have workers wear required personal protective equipment

(3) Qualifications

(i) Qualification titles

DOLE Ordinance No. 13 of 1998 *Guideline on Safety and Health Management in the Construction Industry* prescribes that safety officers in the construction industry each complete 40 hs of basic construction safety and health training courses".

i) Safety officer's duties

- i As the secretary of the Safety and Health Committee, take minutes of meeting, report how far recommendations have been followed, notify the members of meetings to be held, report the activities of the committee (recommendations to be made, etc.) to the contractor, such as.
- ii As an advisor, provide guidance to the contractor, foremen, workers, etc. on all safety issues.

- iii As a member on the committee, investigate accidents and submit its own report and analysis to the contractor.
 - iv Compile a safety training program for workers and the contractor.
 - v As a member on the committee, conduct safety inspections around the workplace.
 - vi Maintain, or help maintain, an efficient system for recording accidents, and coordinate measures taken by managers to eliminate causes.
 - vii Cooperate with government agencies for safety and health inspection, accident investigation, etc.
- * A part-time safety officer should allocate at least 4 hours a week to fulfill their duties as a safety officer.

ii) Number of safety officers to be assigned

Table 11.3 Number of safety officers to be assigned by number of workers

Number of workers	Hazardous/harmful workplaces (Construction sites, etc.)	Non-hazardous/harmful workplaces
<200	1 (Part-time)	
200 ≤ but <1,000	1 (Full-time)	
<1,000		1 (Part-time)
For every 1,000	1 (Full-time)	1 (Full-time)

iii) Safety and Health Committee

Members: Chairperson, doctors/nurses/ first-aiders

Safety officers (having completed the minimum curriculum of the construction safety and health course), directors

(ii) Nature of qualifications (types of jobs requiring qualifications: the types, names, lengths of training for qualifications equivalent to licenses/skill training in Japan)

i) Rescue personnel

A person who is literate and who has completed an rescue/first aid response course accredited by the Philippine Red Cross Society or its organization.

ii) Occupational safety and health specialists

A person who has graduated from an advanced occupational safety and health training course provided by the BWC or an organization accredited by relevant authorities and who, after being certified by the BWC, has at least 5 years of experience in occupational safety and health management. Occupational safety and health specialists must be registered at the regional DOLE office.

11.8. Administrative Punishments, Social Sanctions, etc. Imposed after Occupational Accidents

(1) Administrative punishments imposed on the primary contractor

Under the DOLE ordinance No. 13 (DO-13), the contractor is required to report the result of his/her investigation to the PCAB after taking corrective measures in response to the findings by the DOLE. The rule is that, whether it was the primary contractor or subcontractor who was in breach, the contractor must be strictly dealt with and, if danger is imminent, the director of the regional labor office may order the contractor to stop work or to take measures to abate danger according to Rule 1012.02 of the OSHS.

(2) Administrative punishments imposed on subcontractors

Ibid.

(3) Other social sanctions

None

11.9. Situation of Occupational Accident Prevention Organizations

(i) Names of organizations

The major tasks of safety and health management organizations in the Philippines is to organize safety and health management education and seminars to disseminate guidelines and manuals published by the DOLE among business operators based on the OSH laws and regulations. As of January 2000, institutions in the Philippines accredited by the government for OSH education organizations include the Philippine Occupational Safety and Health Center, an affiliate to the DOLE and the Safety Organization of the Philippines (purely private, unsubsidized organization).

(ii) Outline of organizations

i) Philippine Occupational Safety and Health Center (OSHC)

Established in November 1987 under Administrative Order No. 307 within the Workers Compensation Committee, an affiliate to the DOLE, the OSHC conducts researches, surveys, training, etc., and gives the government professional advice on occupational safety and health.

The major tasks and activities of the OSHC are as follows:

- i Plan, develop, and implement occupational safety and health training programs;
- ii Work as an information center on occupational safety and health activities, methods, technologies, and approaches;
- iii Establish a mechanism for information dissemination
- iv Monitor labor environment, provide workers with medical examination, etc.;
- v Test and set standard specifications for protective equipment and other safety devices;
- vi Assist other government and non-government organizations in policymaking and standardization on OSH issues;
- vii Issue technical guidelines to prevent labor-related illnesses and accidents;

ii) Safety Organization of the Philippines

Founded in 1959 as a non-profit, non-governmental, nationwide public organization whose mission is to protect the lives and promote their health of people. Members include various companies, schools, public institutions, private organizations, labor unions, individuals, etc. The primary purpose is to prevent casualties at workplace, home, community, and roads.

(Source for 11.4 - 11.9: *Safety and Health Management in the Construction Industry Overseas*, JCOSHA, May 2015, partly revised)

11.10. Challenges and Possible Solutions on OSH Policy

The management and practice of occupational safety and health to improve people's working conditions are hindered by various problems, as those shown below, arising from internal and external factors.

- Economic conditions likely to tempt operators to violate the OSHS;
- Low awareness and lukewarm position taken by part of the industry have led to a decline in OSHS compliance;
- Fragmented occupational safety and health programs implemented by government agencies led to inconsistent criteria;
- Lack of personnel trained to promote OSH activities
- Lack of administrative sanctions against specific violations of OSH rules;
- Lack of funds, facilities, and tools necessary for implementing OSH health programs;

To solve these problems, the following solutions have been proposed:

- Review and improve the Labor Code and the OSHS, build in sanctions/penalties for OSH violations to make these regulations legally enforceable, and promote compliance, while allowing the DOLE to spend budgets for workplace safety in implementing OSH programs/policies;
- Enhance the abilities of OSH personnel through intensive internal safety supervision training and increase the number of labor inspectors;
- Introduce a safety engineering course into curriculums at colleges/universities and strengthen the roles of safety officers, safety instructors, safety consultants, and safety committees at every workplace;
- Promote collaboration, cooperative relationships, and benchmarking with local and international organizations for future development of OSH;
- Strengthen activities to provide information, promote education and training, and develop OSH-oriented culture among all strata of working people;

(Source for 11.10: *Country Report, JICA Seminar on Occupational Safety and Health Management Policy* (2004))

12. VIET NAM

12. Basic Information on OSH in Viet Nam

12.1. Profile of Vietnam

Socialist Republic of Viet Nam (Hereinafter referred to as Vietnam), a member of ASEAN, has an elongated national land facing the South China Sea in the eastern part of the Indochinese Peninsula. Vietnam is bordered by China to the north, Laos to the northwest, and Cambodia to the southwest. The economic growth rate of Vietnam has been in the 6% range in recent years.

Since the 1980s, the government has promoted economic and political reforms and has achieved economic development, Vietnam is one of the few one-party socialist states officially espousing communism.

12.1.1. Official name of the Country

Socialist Republic of Viet Nam

12.1.2. Area and Population

Area : Approx. 332,698km²

Population : Approx. 91.7million

Table 12.1 Population, Area and Population density by provinces

	Name of Province (※Government Municipality)	Population (People)	Area (km ²)	Population density (people/ km ²)
Red River Delta	Hanoi (※)	7,216,000	3324.5	2171
	Vinh Phuc	1,054,500	1237.5	852
	Bac Ninh	1,154,700	822.7	1404
	Quang Ninh	1,211,300	6102.3	199
	Hai Duong	1,774,500	1656.0	1072
	Hai Phong (※)	1,963,300	1527.4	1285
	Hung Yen	1,164,400	926.0	1257
	Thai Binh	1,789,200	1570.8	1139
	He Nam	802,700	862.0	931
	Nam Dinh	1,850,600	1653.2	1119
	Ninh Binh	944,400	1377.6	686
Northern midlands and Mountain	Ha Giang	802,000	7914.9	101
	Cao Bang	522,400	6703.4	78
	Bac Kan	313,100	4859.4	64
	Tuyen Quang	760,300	5867.3	130
	Lao Cai	674,500	6383.9	106
	Yen Bai	792,700	6886.3	115
	Thai Nguyen	1,190,600	3533.2	337
	Lang Son	757,900	8320.8	91
	Bac Giang	1,640,900	3849.5	426
	Phu Tho	1,369,700	3533.3	388
	Dien Bien	547,800	9562.9	57
	Lai Chau	425,100	9068.8	47
	Son La	1,182,400	14174.4	83

	Hoa Binh	824,300	4608.7	179
North central and Central coastal	Thanh Hoa	3,514,200	11129.5	316
	Nghe An	3,063,900	16490.0	186
	Ha Tinh	1,261,300	5997.8	210
	Quang Binh	872,900	8065.3	108
	Quang Tri	619,900	4739.8	131
	Hue	1,140,00	5033.2	227
	Da Nang (※)	1,028,800	1285.4	800
	Quang Nam	1,480,300	10438.4	142
	Quang Ngai	1,246,400	5152.7	242
	Binh Dinh	1,519,700	6050.6	251
	Phu Yen	893,400	5060.6	177
	Khanh Hoa	1,205,300	5217.7	231
	Ninh Thuan	595,900	3358.3	177
	Binh Thuan	1,215,200	7813.1	156
Central Highland	Kon Tum	495,900	9689.6	51
	Gia Lai	1,397,400	15536.9	90
	Dak Lak	1,853,700	13125.4	141
	Dak Nong	587,800	6515.6	90
	Lam Dong	1,273,100	9773.5	130
South East	Binh Phuoc	944,400	6871.5	137
	Tay Ninh	1,111,500	4032.6	276
	Binh Duong	1,947,200	2694.4	723
	Dong Nai	2,905,800	5907.2	492
	Vung Tau	1,072,600	1989.5	539
	Ho Chi Minh (※)	8,146,300	2095.5	3888
Mekong River Delta	Long An	1,484,700	4495.0	330
	Tien Giang	1,728,700	2509.3	689
	Ben tre	1,263,700	2359.8	536
	Tra Vinh	1,034,600	2341.2	442
	Vinh Long	1,045,000	1520.2	687
	Dong Thap	1,684,300	3378.8	498
	An Giang	2,158,300	3536.7	610
	Kien Giang	1,761,000	6348.5	277
	Can Tho (※)	1,248,000	1408.9	886
	Hau Giang	770,400	1602.4	481
	Soc Trang	1,310,700	3311.6	396
	Bac Lieu	882,000	2468.7	357
	Ca Mau	1,218,900	5294.9	230

【Source: Vietnam Yearbook 2016】

12.1.3. Capital (Population, Location)

Name of Capital : Hanoi Population : 7.2 million

Latitude : 21.017N, Longitude : 105.83E

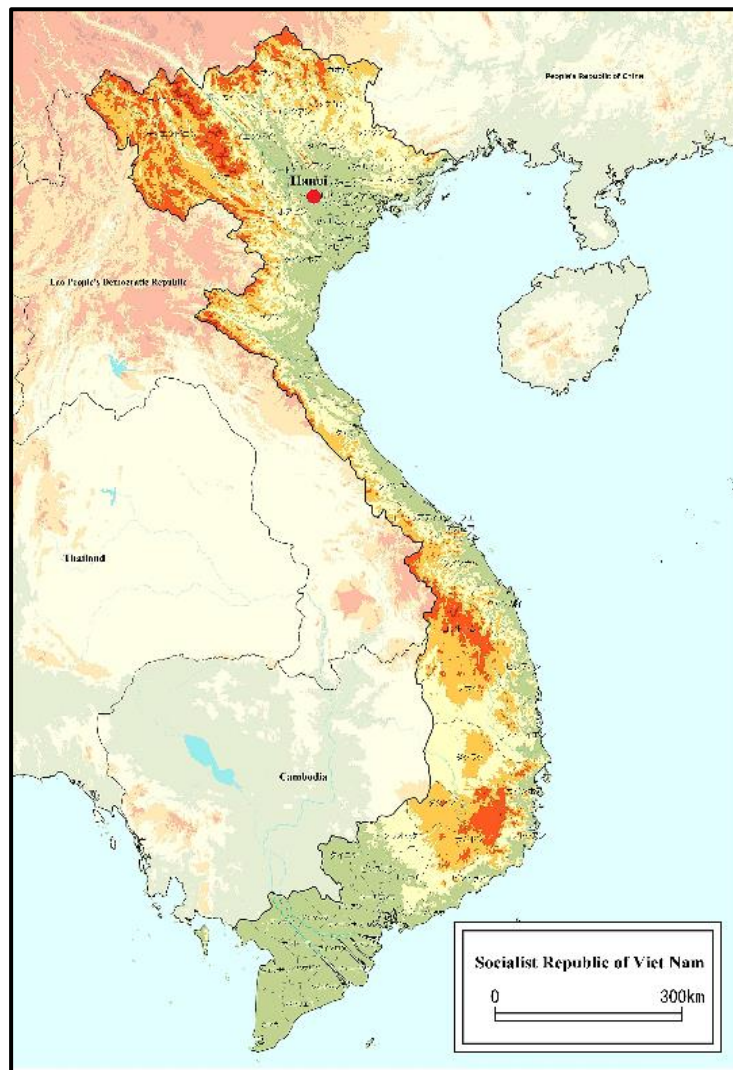


Fig.12.1 Map of Vietnam (by Study Team)

12.1.4. Climate, Temperature

Hanoi: Humid subtropical climate

Highest temp: 32.9°C Lowest temp: 13.7°C

Annual Rainfall: 1,676.2mm

12.1.5. Religion, Language

Vietnamese (Official), Others (Minor ethnic language)

Buddhism (Approx. 80%)、Christianity, Caodaism, Hoahaoism and others

12.1.6. Currency

Dong (1USD = 22,743.93 VND Feb, 2017)

12.1.7. Labor Force

Overall labor population : 52,840,000 people
Agriculture, forestry and fisheries : 23,259,100 people
Construction : 3,431,800 people

12.1.8. GDP

Nominal GDP : 4,192,862 (10billion VND) (2015)
Nominal GDP per capita : 2,088 U.S dollars (2015)
Real GDP Growth rate : 6.7% (2015)

【Source: Global Trade Investment Report of JETRO】

12.1.9. International Balance of Payment

Current Balance : 2,764 million U.S dollar (2015)
Trade Balance : △3,537million U.S. dollar (2015)
Foreign Currency Reserve : 28,250 million U.S. dollar (2015)
External debt balance : 71,890 million U.S. dollar (2014)

【Source: Global Trade Investment Report of JETRO】

12.1.10. Trade and Investment Status with Japan

a) Trade with Japan (2015)

- i. Amount of Trade with Japan
 - Export 14.14 billion U.S dollar (Year-over-Year 3.8% down)
 - Import 14.37 billion U.S. dollar (Year-over-Year 11.3% gain)
- ii. Exported Items : Sewing items, mobile phones and their parts, Parts of the electric products and machinery equipment etc.

b) Direct Investment from Japan (2014)

1.84 billion U.S. dollar (Approved)

【Source: MOFA website】

12.2. Institutional Framework on OSH

MOLISA and MOH with being primarily responsible for the state management of OSH. MOLISA is responsible for work safety, while MOH is responsible for the care, protection and promotion of workers' health.



Fig.12.2 OSH Organization System

(1) Ministry of Labor- Invalid and Social Affairs : MOLISA

The Ministry of Labor - Invalids and Social Affairs is a Government Ministry, performs state management functions on the following areas of: employment, vocational training, wage and salary, social insurances (compulsory social insurance, voluntary social insurance and unemployment insurance), occupational safety, people with special contribution to the country, social protection, child care and protection, gender equality, social evils control and prevention (hereinafter referred to as “labor & social issues and people with special contribution”). The state management exercised by the Ministry covers a nationwide scope, including the state management over the public services applied to sectors and areas within the Ministry responsible fields.

Ministry of Labour - Invalids and Social Affairs			
State Management Agencies	Functional Unit	Public Service Organizations	Local Departments
<ul style="list-style-type: none"> * Department of Labour and Wage * Department of Social Insurance * Department of Gender Equality * Department of International Co-operation * Department of Planning - Finance * Department of Legal Affairs * Department of Personnel and Organization * Inspectorate * Ministry Office * Department of Work Safety * Department of National Devotees * Department of Social Vices Prevention and Combat * Department of Overseas Labour * Department of Employment * Department of Social Assistance * Department of Child Care and Protection * Directorate of Vocational Training * Communist Party and Trade Union Office * National Office for Poverty Reduction 	<ul style="list-style-type: none"> * Labour and Social Affairs Information Centre * The Institute of Labour Science and Social Affairs * Institute of Orthopedics & Functional Rehabilitation * Magazine of Labour & Social Affairs * Magazine of Family and Children * Newspaper of Labour & Social Affairs * Training School for Officials, Civil Servants on Labour and Social Affair * Center for Industrial Relations Development 	<ul style="list-style-type: none"> * University of Labour and Social Affairs * Nam Dinh Pedagogical Technology University * Vinh Pedagogical Technology University * Vinh Long Pedagogical Technology College * Vocational College of Technology * Ho Chi Minh Vocational College of Technology * Dung Quat Vocational Secondary School * The National Fund for Vietnamese Children * Vietnam Bomb and Mine Clearance Action centre * National Office of Poverty Reduction * Overseas Worker Centre * Centre of Orthopedics and Rehabilitation for Disabled Children * Centre of Rehabilitation and Assistance for Disabled Children * Social Protection Centre for Handicapped Children * Thuy An Rehabilitation Centre for Handicapped Children * Technology Centre for Orthopedics and Rehabilitation * Can Tho Centre for Orthopedics and Rehabilitation * Ho Chi Minh Centre for Orthopedics and Rehabilitation * Quy Nhon Centre for Orthopedics and Rehabilitation * Viet Tri Centre for Nursing – Psychiatric Rehabilitation (以下省略) 	<ul style="list-style-type: none"> Red River Delta Northeast Northwest North Central Coast South Central Coast Central Highlands Southeast Mekong River Delta

Fig.12.3 Organization chart of MOLISA

■ Department of Work Safety: DWS

According to the Decision No. 948/QĐ-LĐTBXH on Roles, Responsibilities, Duties, Authorities and Organization of Department of Work Safety, the Department of Work Safety (DWS) is a unit of the Ministry of Labor - Invalids and Social Affairs, has the responsibilities and duties to assist the Minister in performing the state management role in work safety area throughout the country, as specified by laws.



Fig.12.4 Organization chart of DWS

【Source: MOLISA Website】

According to Decision No. 948/QĐ-LĐTBXH “On Roles, Responsibilities, Duties, Authorities and Organization of Department of Work Safety”, DWS’s roles are bellow,

1. Carrying out research works and submitting to the Ministry
2. Providing guidelines to and monitoring the implementation of State's and Ministry's regulations on work safety & hygiene and personal protective equipment.
3. Providing consultation, comments and advices in writing, in the name of the Ministry of Labor, Invalids and Social Affairs, to other ministries to support their issuance of inspection, calibration and validation of equipment, machinery and materials with special requirements on work safety.
4. Conducting the update of accident statistic & report compilation, merits and rewards good safety performance.
5. Managing activities, programs and contents of work safety & health training.
6. Organizing activities of communication, information and education on work safety as assigned by the Ministry; managing and monitoring the national week on work safety & hygiene and prevention of fire and explosion.
7. Taking part in research works on compilation of policies and schemes applied to personnel in related fields.
8. Coordinating and collaborating with the Department of Personnel & Organization to prepare lists of works and work positions, lists of job titles of work safety personnel, estimates of required number of personnel, structure of organization and job titles in state management units in work safety area as required by the Ministry.
9. Supporting the Ministry in managing associations, NGOs operating in work safety as specified by laws.
10. Conducting international cooperation activities as assigned by the Ministry.
11. Taking part in research works, in training activities to specialized personnel, civil and public servants,

workers in the area of work safety as assigned by the Ministry.

12. Collecting information and data, making periodical and incidental reports on work safety area.
13. Managing staff, physical and financial resources e as specified by legislation and the Ministry.
14. Performing any tasks requested by the Ministry.

(2) Ministry of Health: MOH

The Ministry of Health is an agency of the Government, performing the function of State management of Health, including the fields of preventive healthcare, medical examination, treatment, rehabilitation; medical examiners, forensic medicine, mental health; traditional medicine; reproductive health; medical equipment; torch; cosmetic; food safety; health insurance; population - family planning; state management of public services in areas under the jurisdiction of its State.

■ National Institute of Occupational and Environmental Health : NIOEH

- In 1982, NIOEH was founded, and under management of the Ministry of Health.
- Since 1985, the NIOH has been recognized as a WHO Collaborating Centre in Occupational Health.
- NIOEH's functions and Tasks are as below;
 - Scientific researches
 - Training
 - Coordination of the network on occupational health, environmental health and school health
 - International Collaboration
 - Communication and Education
 - Provision of Scientific and Technical Services

(Source: <http://www.wpro.who.int/en/>)

(3) Vietnam General Confederation of Labor: VGCL

VGCL is an organization representing Vietnam's trade union that integrates 61 parties of Provincial Confederation of Labor at the province level and 16 parties of National Union of industries. They are engaged in activities related to collaboration and involvement with ministries and agencies on policy aspects of occupational safety and health, to establish technical standard, to develop and promote of occupational health and safety research and engineering measures, and to promote of occupational safety and health education/ awareness activities.

12.3. Role and Budget of Central/ Regional Government

The administrative system of Vietnam is different from our country, the each ministries and agencies of central government are administering and implementing national policies. In each province, the People's Committee of the province has the similar departments to the central ministries, which are administrating relating policies as the branch position of central ministries.

The correlation of each ministry/agency is shown in Figure 12.5 below.

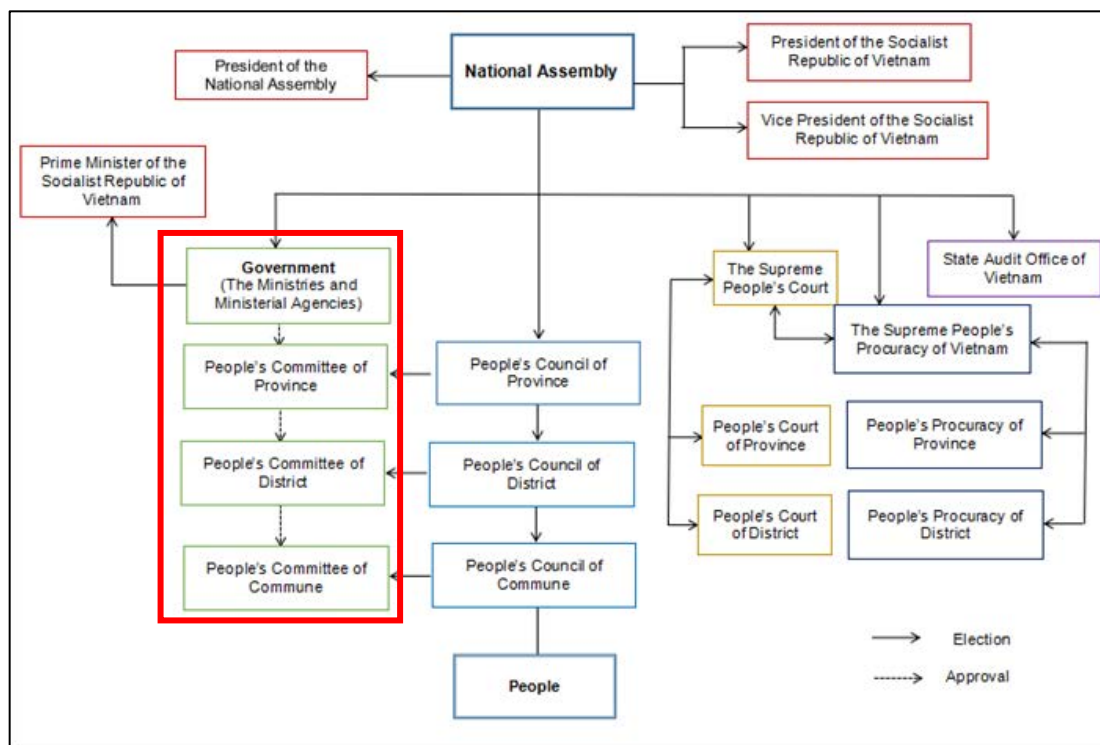


Fig.12.5 Administrative System

(1) Budget for OSH

The budget for National Program on Occupational Safety and Health - Phase 2011-2015 is shown below. These budgets include supports from the fund of Danish government.

Table 12.2 Total budget for OSH Program

Phase 2011 - 2015 (billion VND)					
	The State Budget				
	The Central Budget	The Regional Budget	Funding from enterprises	Funding from international firms	Total
Expected	680	50			
Actual	483.471	35.469	500	77	1,095.94

【Source: MOLISA website】

Table 12.3 The actual budget structure 2011- 2015 (Central government)

The actual Central budget (billion VND)						
	2011	2012	2013	2014	2015	Total
Vietnamese Government Funding	25.965	85.171	96.232	42.884	50	300.252
Denmark Government Funding	26.506	74.829	63.768	18.116	0	183.219
The Central budget	52.471	160	160	61	50	483.471

(Source: MOLISA website)

12.4. Status and Statistics of Occupational Accidents in Vietnam

(1) Status of Occupational Accidents in Vietnam

There were 5,232 fatal accidents, 5,791 deaths and 14,298 serious injuries between 2005 and 2014. The construction sector is the sector with the largest number of occupational accidents, accounting for about 30% of the fatal case every year. Especially in 2014, 6709 disasters were reported, 592 fatal incidents occurred, 630 people died.

Table 12.4 Number of Occupational Accidents and Fatalities

Occupational Accidents Statistics of Vietnam												
Data	YEAR											
	2011		2012		2013		2014		2015		2016 (the first 6 months)	
	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death
Total	5,896	574	6,777	606	6,695	627	6,709	630	7,620	666	3,674	356
Sectors that occurred most occupational accidents												
Construction	1,537	117	1,850	139	1,942	169	2,213	214	2,667	253	808	79
Mining and Quarrying	502	93	610	61	1,005	88	738	76	458	47	146	65
Mechanical Manufacturing	623	37	339	31	335	32	403	38	686	54	515	43
Services	402	30	335	29	402	38	604	57	534	47	258	22
Agriculture, Forestry	243	27	272	25	268	26	269	32	458	34	478	43
Textiles, footwear	285	31	271	23	265	24	336	31	381	40	331	40
Types of occupational Accidents												
Falls from height	420	151	1,153	103	1,808	157	2,080	196	2,134	174	702	63
Electrical shock	225	77	1,232	87	1,473	126	1,611	139	1,448	114	698	58
Injured by machinery, equipment	1,870	59	1,213	37	1,005	88	537	45	457	34	258	29
Falling objects, collapse	582	73	543	49	938	82	1,007	95	1,296	154	588	57
Traffic accidents	406	40	339	31	737	63	805	76	991	80	1,323	132

Table 12.5 Number of Occupational Accidents and Fatalities at Construction site

Statistical Data regarding Accidents and Disasters in Construction / Civil Works																						
Data	YEAR																					
	2006		2007		2008		2009		2010		2011		2012		2013		2014		2015		2016 (the first 6 months)	
	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death	Accidents Reported	Death
Total number of accidents annually	5,881	536	5,951	621	5,936	573	8,250	550	5,125	601	5,996	574	6,777	606	6,695	627	6,709	630	7,620	666	3,674	356
Total number of accidents in Construction Sector annually	2,025	174	1,658	276	1,724	171	1,872	238	1,468	153	1,537	117	1,850	139	1,942	169	2,213	214	2,667	253	808	79

12.5. Legal System and Program for Occupational Safety and Health

(1) Law on Occupational Safety and Health (No.84/2015/QH13)

The Law on Occupational Safety and Health Act enacted in 2015 consists of all the 7 chapters and 92 clauses shown below, which came into effect in January 2016. This law provides for measures to guarantee the policies and compensation for occupational health and safety and the victims of workers' compensation insurance (accident or illness). English translation version of this law have been published by the ILO of the web.

(http://www.ilo.org/dyn/legosh/en/f?p=LEGPOL:1100:3039595363922:::P1100_THEME_ID:100500)

Table 12.6 Low on OSH List of Articles

Chapter 1 : GENERAL PROVISIONS
Article 1. Scope of adjustment
Article 2. Subjects of application
Article 3. Interpretation of terms
Article 4. State policies on OSH
Article 5. Principles for guaranteeing OSH
Article 6. Rights and obligations of workers on OSH
Article 7. Rights and obligations of employers on OSH
Article 8. Rights and responsibilities of Vietnam Fatherland and Front, its member organizations and other social organizations
Article 9. Rights and responsibilities of the trade unions for OSH
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Article 11. Rights and responsibilities of Vietnam's Farmers Union
Article 12. Prohibited acts in OSH
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Section1 : INFORMATION, COMMUNICATION, EDUCATION AND TRAINING IN OCCUPATIONAL SAFETY AND HEALTH
Article 13. Information, communication and education on OSH
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Section 2 : REGULATIONS, PROCEDURES AND MEASURES FOR GUARANTEEING OCCUPATIONAL SAFETY AND HEALTH AT THE WORKPLACE
Article 15. Regulations and procedures for guaranteeing OSH
Article 16. Responsibilities of employers in guaranteeing OSH at the workplace
Article 17. Responsibilities of workers in guaranteeing OSH at the workplace
Article 18. Control of hazardous factors and toxic factors at the workplace
Article 19. Measures to settle technical incidents causing serious OSH failure and provide emergency rescue
Article 20. Improvement of working conditions and development of safe work culture
Section 3 : LABOR PROTECTION AND HEALTH CARE FOR WORKERS
Article 21. Health check-up and treatment of occupational diseases for workers
Article 22. Heavy, hazardous and toxic work/occupations
Article 23. Personal protective equipment at work
Article 24. In-kind allowances
Article 25. Working hours under working conditions with hazardous factors and toxic factors
Article 26. Health recuperation
Article 27. Management of workers' health
Section 4 : MANAGEMENT OF MACHINERY, EQUIPMENT, SUPPLIES AND SUBSTANCES SUBJECT TO STRICT REQUIREMENTS FOR OCCUPATIONAL SAFETY AND HEALTH
Article 28. Machinery, equipment, supplies and substances subject to strict requirements for OSH
Article 29. Development of OSH schemes when constructing, expanding or renovating works/infrastructure serving the production, use, preservation and storage of machinery, equipment, supplies and

substances subject to strict requirements for OSH
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Article 32. Rights and obligations of organizations delivering occupational safety appraisal
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CHAPTER 3 : MEASURES TO SETTLE TECHNICAL INCIDENTS CAUSING OCCUPATIONAL SAFETY AND HEALTH FAILURE, OCCUPATIONAL ACCIDENTS AND DISEASES
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Article 34. notification of occupational accidents and technical incidents causing OSH failure
Article 35. Investigation of occupational accidents, technical incidents causing OSH failure, technical incidents causing serious OSH failure
Article 36. Inventory and reporting on occupational accidents, technical incidents causing serious OSH failure
Article 37. Inventory and reporting on occupational diseases
Section 2 : RESPONSIBILITIES OF EMPLOYERS FOR VICTIMS OF OCCUPATIONAL ACCIDENTS AND DISEASES
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Article 40. Circumstances where workers are not entitled to allowances for occupational accidents from the employer
Section 3 : INSURANCE COMPENSATION FOR OCCUPATIONAL ACCIDENTS AND DISEASES
Article 41. Principles of providing insurance compensation for victims of occupational accidents and diseases from the Insurance Fund for Occupational Accidents and Diseases
Article 42. Use of the Insurance Fund for Occupational Accidents and Diseases
Article 43. Subjects entitled to insurance compensation for occupational accidents and diseases
Article 44. Premium rate and sources for forming the Insurance Fund for Occupational Accidents and Diseases
Article 45. Conditions for receiving compensation for occupational accidents
Article 46. Conditions for receiving compensation for occupational diseases Article 47. Assessment of the degree of work ability decrease
Article 47. Assessment of the degree of work ability decrease
Article 48. Lump-sum allowance
Article 49. Monthly allowance
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Article 51. Assistive and orthopaedic devices
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Article 87. Responsibilities for developing, announcing national OSH standards and developing, promulgating national OSH technical regulations
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Article 90. Treatment of OSH violations
Article 91. Collaboration mechanism in OSH
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Article 92. Enforcement
Article 93. Detailed provisions

(Source: ILO website)

(1) Other OSH related laws

The aforementioned Law on Occupational Safety and Health states that individual details are to be handled according to each specialized law. Other Laws related to OSH are shown below.

- Law on Protection of People's Health No.21-LCT/ HDNN8
- Environmental Protection Act by the National Assembly of the Socialist Republic of Vietnam adopted on 23 June, 2014, effective from 01 Jan, 2015
- Chemical Law No.06/ 2007/QH12 Dated 21 Nov, 2007
- Social Insurance Law No. 58/ 2014/ QH13
- Health Insurance Law No.46/ 2014/QH13
- Labor Code No. 10/ 2012/ QH13
- Employment Law No.28/ 2013/ QH13

There are more specialized Circulars, Decisions, Regulations, and Decrees under these laws.

12.6. Position of Occupational Safety and Health Administration on National Policy

Following the 5years program from 2011, To enforce the compliance with OSH laws, Government formulated and approved the National Program on Occupational Safety and Health during 2016- 2020.

■ National Program on Occupational Safety and Health- Phase 2016 - 2020

On 5th January 2016, the Government issued the Decision of Approval National Program on Occupational Safety and Health - Phase 2016 - 2020 with overall objectives which are: improving working conditions, reducing working environment pollution; preventing occupational accidents and diseases, health-care for workers; raising awareness and compliance with legislation on labor protection, ensuring life safety for employees, assets of the State, assets of enterprises, organizations, contributing to the sustainable development of the country.

12.7. Current status and issues of OSH Administration in Vietnam

12.7.1. Accident Reporting System

According to Article7 of Law on OSH, Employers have obligations to notify, investigate, inventory and report on occupational accidents, occupational diseases, technical incidents causing serious OSH failure; prepare statistics and reports on the implementation of OSH; implement conclusions of OSH inspectors.

12.7.2. Safety and Health Education/ Training

In the Law on OSH, Education and Training on OSH is stipulated as follows,

- Employers must provide workers with information, communication and education on OSH, hazardous factors, toxic factors and OSH measures at the workplace; provide instructions on OSH regulations for visitors to and workers in their establishment.
- Manufacturers must provide information on OSH measures attached to goods and products which are likely to create unsafe situations to users during the working process.
- Managers in charge of OSH, OSH officers, health worker and OSH representatives from production/business establishments must participate in OSH training and obtain a certificate from an OSH training institution after passing the examination organized by it.
- In case there changes to OSH policies, legislation or OSH science/ technologies, they must get their knowledge and skills refreshed and updated.

The typical educational institution is OSH training center under DWS • MOLISA.

12.7.3. Qualification System

According to the OSH Law, In Article 14, Managers in charge of OSH, OSH officers, health worker and OSH representatives from production/business establishments must participate in OSH training and obtain a certificate from an OSH training institution after passing the examination organized by it.

12.7.4. Inspection System for OSH

(1) Name of Institution that manages work issues

MOLISA (Ministry of Labor, Invalids and Social Affairs)

(2) Responsible of Labor Inspection

The MOLISA Inspectorate is the central authority of the labor inspection system in the country. It has six functional divisions: Labor Policy Inspections, OSH Inspections, Child and Social Affairs Policy Inspection, Inspections of “Policy for Meritorious People”, General Services and Administrative Inspections, Citizen Reception and Complaint and Denunciation Handling. (Labor Code, Law on Inspection No.56/2010/QH12)

The inspection system related to occupational safety by MOLISA shown below.

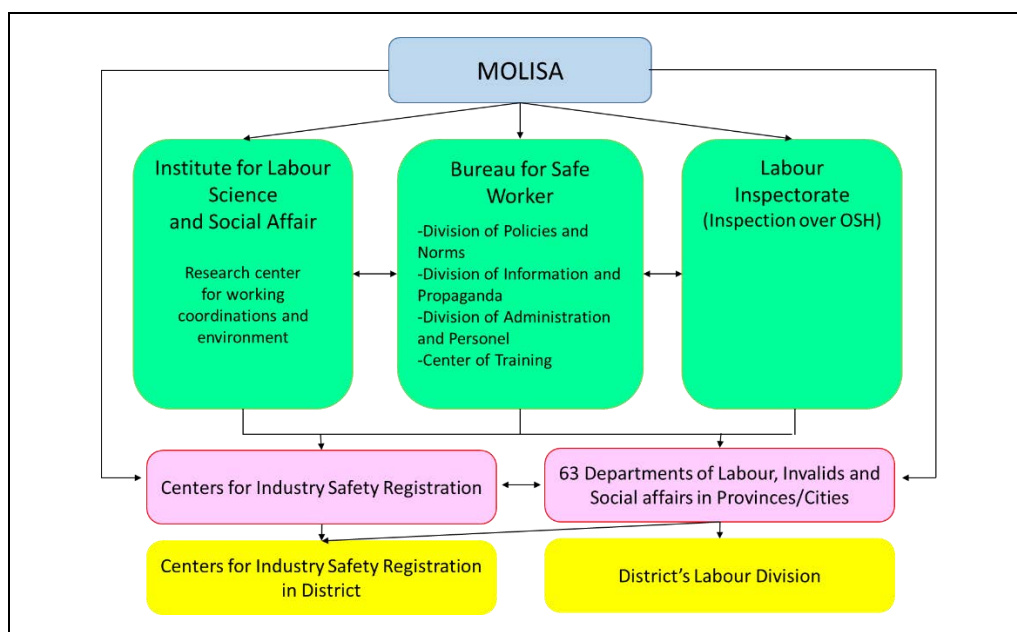


Fig.12.6 Labor Inspection System of MOLISA

The inspection system related to occupational health by MOH shown below.

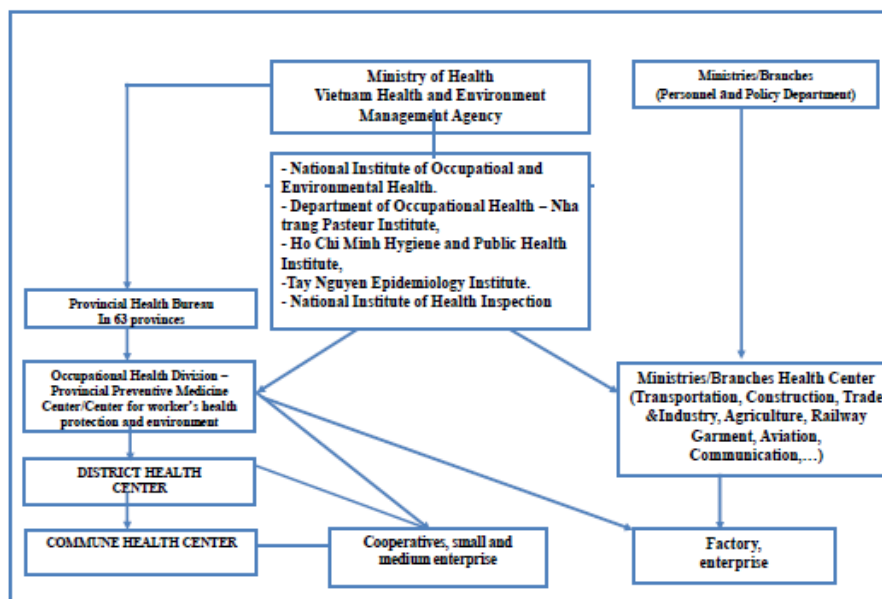


Fig.12.7 Occupational Health Check System

12.7.5. Compensation

Occupational accident compensation in Vietnam is stipulated by OSH law and social insurance law. Insurance premiums for occupational accidents and diseases are determined by worker's wages, and employers have to pay worker's social insurance fees (1% of wages) monthly to the Occupational Safety and Health Disaster Insurance Fund. This fund is made up of payments, investment profits managed by the fund under the Social Security Act. As Conditions for receiving compensation, it is a case of damage during work hours (including breaks), accidents at a designated commuting route during permitted overtime, impaired work ability by these accidents by 5% or more After the occurrence of a fatal accident due to workers' accident, a lump sum equivalent to 36 times the basic wage at the time of death is paid to the family.

12.7.6. Application of the Law on OSH for foreign workers

According to the Law No.84/2015/QH13 on OSH, foreign workers are one of the subjects of application, therefore, Vietnamese Government treats foreign workers as equal as local. The subjects of Law application who breach the rules, the action will be taken accordingly.

12.7.7. Priority issues in occupational health and safety

According to NIOEH's report, OSH legal system has not kept pace with the rapid changes in the country's economic-social sectors, revealing limitations that should be addressed.

12.8. Collaboration with International Organizations and Agencies of Foreign Countries on OSH Promotion for Vietnam

(1) International Organization

Vietnam has ratified 21 out of 189 conventions of International Labor Standard as ILO member country. ILO has promoted OSH activities in Vietnam through training programs for small and medium enterprises.

And Vietnam as an ASEAN member, has joined ASEAN-OSHNET. In 2016, 17th meeting of ASEAN-OSHNET Coordinating Board Meeting was held in Da Nang city of Vietnam, ASEAN countries and other 3 countries, China, Korea and Japan, had joined the meeting.

(2) Denmark

Since 2005, Denmark has collaborated with the Bureau of Safe Work to improve safety and labor protection systems in Vietnam, helping to improve working conditions and social welfare in Vietnam. Only in 3 years (from 2011-2013), Denmark had supported Vietnam DKK 50 million (approximately 175 billion) through budget support implementation of the National Program on OSH 2011-2015.

The Fund from the Danish Government had contributed to successfully implement the specific contents as follow:

- Improving the efficiency of State management of Labor Protection
- Occupational diseases prevention, wellness and recovery of working capacity
- Raising awareness and responsibility of management levels or organizations and individuals
- Research and application of science and technology for OSH
- Building a culture of safety at work, enterprises committed to implement OSH
- Summary, Inspection and Monitoring to assess the effectiveness of the program for each project.

(3) JICA

Vietnam has collaborated with JICA on the Project of Effective Implementation of Law on OSH in Agriculture, Trade Villages, small and medium enterprises in Vietnam.

13. MYANMAR

13. Basic Information on OSH in Myanmar

13.1 Profile of Myanmar

Myanmar is a republic nation located in the west part of Indochina Peninsula. The country became independent from England in 1948, and had been called Union of Burma since the independence to 1989.

It faces the Bay of Bengal on the southwest, Andaman Sea on the south, and is bordered with Thai on the southeast, with Laos on the east, with China on the north and northeast, with India on the northwest and with Bangladesh on the west.

The Ne Win Government which started in 1962 promoted the socialist economic policy. But its closed economic policy brought the country severe economic difficulties such as drain of foreign exchange reserves, stagnant production, accumulated external debt and so on. In September 1988, a military regime was formed by the coup d'état of the national military, and Myanmar abandoned socialism policies and promoted an open economic policy, however the economic situation did not improve and has gotten even worse. In 2003, America strengthened economic sanctions against Myanmar after the regime restricted Aung San Suu Kyi. In 2004, EU also strengthened sanctions and the sanctions were strengthened even more against the regime's suppression of people's demonstration in 2007.

The Union Solidarity and Development Party (USDP) won 80% of seats in the general election in November, 2010. Right after the election, the regime released Aung San Suu Kyi after seven and a half years under house arrest. In 2011, the civilian government led by President Thein Sein was established.

Since then, America and European countries acknowledged Myanmar's efforts for its political and economic reforms. America removed embargo of products of Myanmar except some items in 2012, and EU also removed economic sanctions except arms embargo in 2013.

In late years Myanmar maintains the high economic growth rate of more than 7% except the time of the Lehman shock.

13.1.1. Official Name of the Country

Republic of the Union of Myanmar

13.1.2. Area and Population

Area: 676,000 km² (approx. 1.8 times of Japan)

Population: 51.42 million (Ministry of Immigration and Population of Myanmar: 2014)

13.1.3. Capital (Population, Location)

Naypyidaw (Capital was transferred from Yangon in 2006)

Population: estimated approximately 1.0 million (Yangon: 5.16 million, 2014)

Latitude: 19.44N, Longitude: 96.07E

13.1.4. Climate, Temperature

Tropical monsoon climate: Summer (March ~ May), Rainy season (June ~ October),

Dry season (November ~ February)

Naypyidaw: The mean highest temperature: 38°C, The mean lowest temperature: 14°C

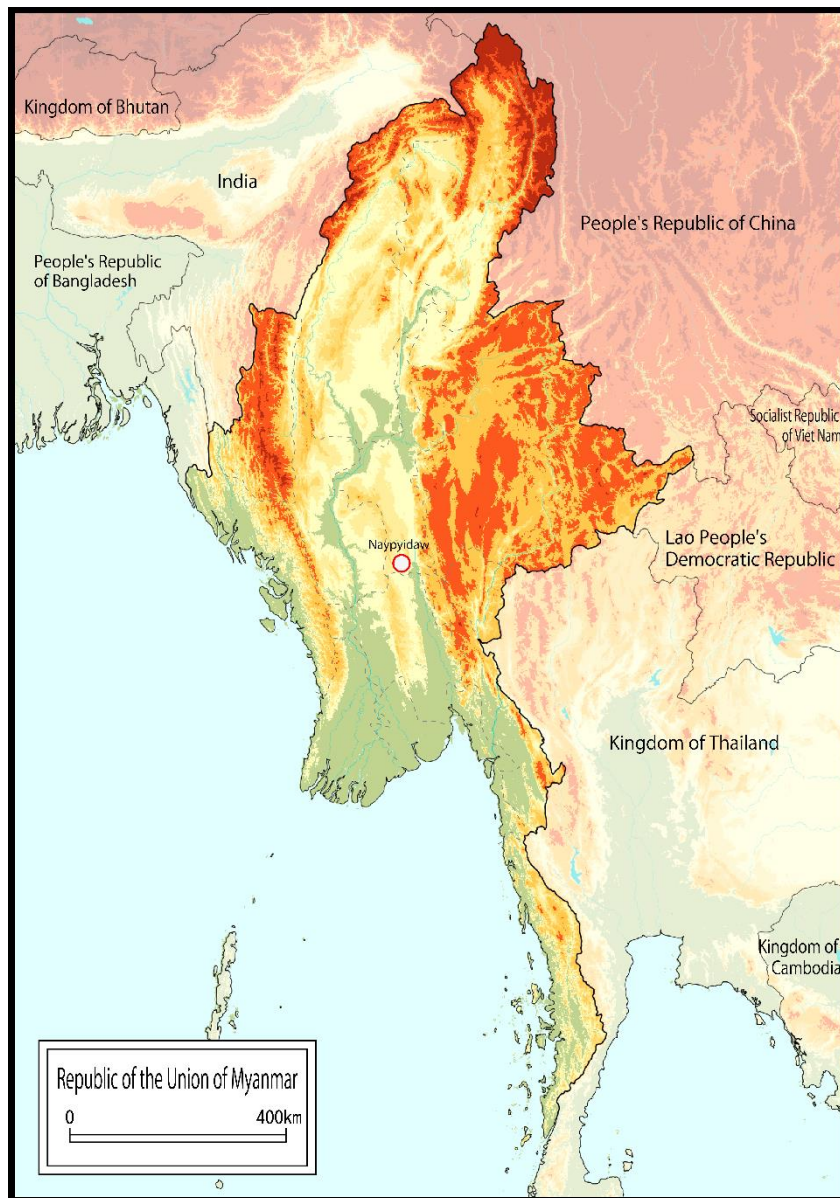


Fig.13.1 Map of Myanmar (by Study Team)

13.1.5. Religion, Language

Religion: Buddhism (89.4%), Christian (4.9%), Muslim (3.9%), Hindu (0.5%)

Language: Burmese (Official language), Shan, Karen, English

13.1.6. Currency

Chat: 1 U.S. dollar = 1,289 Chat (November, 2016)

13.1.7. Number of Workers (estimated by CIA: 2011)

Overall Industry : 32.50 million

Agriculture, Forestry, Fishery : 56.5%

Construction	:	2.6%
Service	:	28.4%
Manufacturing	:	12.5%

13.1.8. GDP (2014)

Nominal GDP: 56.8 billion U.S. dollars

Nominal GDP per capita: 1,113 U.S. dollars

Real GDP Growth Rate: 8.25%

13.1.9. International Balance of Payment (2014)

Current Balance (International balance of payment base) : Δ 1.64 billion U.S. dollars

Trade Balance (International balance of payment base) : Δ 3.05 billion U.S. dollars

Foreign Currency Reserve : N/A

External Debts Balance : 13.84 billion U.S. dollars

13.2. Legal System, Institution for Occupational Safety and Health

The laws for occupational safety and health in Myanmar is not yet systematically organized and is still underway to develop.

At present, the following laws are those which contains OSH related clauses. Among the listed laws, Factories Act, 1951 is most applied for safety and health in factories and other workplaces.

- Factories Act, 1951
- Oilfield (Labor and Welfare) Act, 1951
- Boiler Law, 1984
- Electricity Law, 1984, amended 1990
- Mines Law, 1994
- Pesticide Law, 1990
- Municipal Act, 1922
- City Development Law, 1990

Factories Act, 1951 stipulates various obligations for safety, health and welfare as follows;

(1) Safety Provisions

- ✓ Fencing dangerous parts of moving machineries
- ✓ Woman and child are not allowed to clean, lubricate or adjust any part of machinery
- ✓ No young person shall not work or be required to work at any machine without sufficient training
- ✓ No woman or child shall not be employed in any part of a factory in which a cotton opener is working
- ✓ Others

(2) Health Provision

- ✓ Factories shall be kept clean and free from effluvia
- ✓ Effective arrangement shall be made for disposal wastes and effluences
- ✓ Workrooms must be adequately ventilated
- ✓ No room in a factory shall be overcrowded
- ✓ Provide sufficient supply of clean drinking water
- ✓ Provide latrines
- ✓ Every factory must be equipped with means of escape and firefighting apparatus
- ✓ Others

(3) Welfare Provision

- ✓ Adequate and suitable washing facilities
- ✓ Provide sitting facilities
- ✓ Adequate and suitable rest shed, rest rooms and dining rooms (more than 100workers)
- ✓ Others

The government of Myanmar recognizes delay in preparation of OSH related laws and inadequacy to present situation of the country. Recently they are proceeding with preparation of a new “Workplace Safety and Health Act” as the comprehensive occupational safety and health law of Myanmar.

13.3. Institutional Framework on OSH

Although there are some public agencies undertaking the activities on safety and health of workers as shown below, the primary responsibility rests with FGLLID (Factories and General Labor Laws Inspection Department) under Ministry of Labor (Official Name: Ministry of Labor, Employment and Social Security).

- Factories and General Labor Laws Inspection Department, Ministry of Labor
- Boiler and Electrical Inspection Agency, Ministry of Industry
- Department of Public Work, Ministry of Construction
- Occupational Health Division, Ministry of Health
- Mine Department, Ministry of Mine
- Industrial Crops Development Enterprise, Ministry of Agriculture and Irrigation
- City Development Committees

(1) Factories and General Labor Laws Inspection Department (FGLLID)

1) Objectives of FGLLID

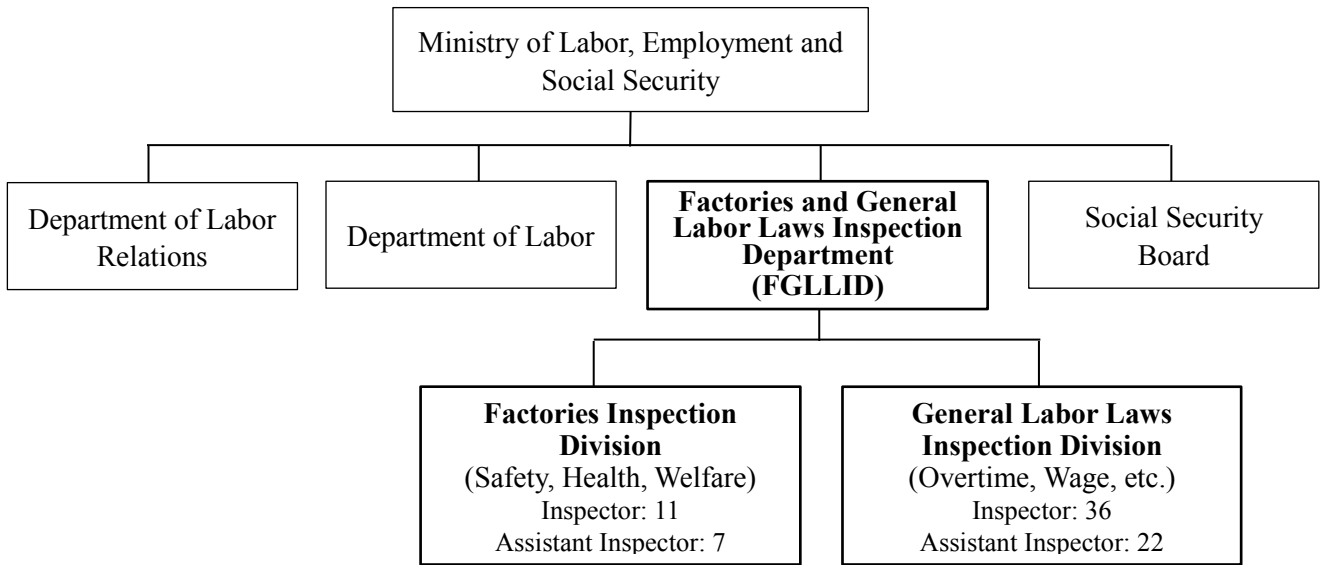
- a. To enforce OSH and related laws
- b. To conduct training and to guide on OSH issues

2) Function and Activities of FGLLID

- a. Inspection

- b. Accident investigation
- c. Conducting training and awareness raising
- d. Executing OSHMS
- e. Work environment measurement
- f. Cooperation with regional and international OSH organizations

3) Organization of FGLLID



(Country Presentation on OSH, 2015 in Tokyo by Ministry of Labor, Myanmar)

Fig.13.2 Factories and General Labor Laws Inspection Department (FGLLID)

13.4. Status of Occupational Accidents in Myanmar

Factories Act, 1951 stipulates that all accidents occurred and resulted in fatality or injury in factories and industrial establishments shall be reported, however, it explicitly excludes accidents in construction industry and accidents during commuting.

Table 13.1 Number of Victims in Occupational Accidents in Myanmar

Year	Minor Injury	Serious Injury	Fatal	Total
2000	458	120	22	600
2001	455	130	25	610
2002	320	135	10	465
2003	187	107	13	307
2004	175	91	10	276
2005	126	57	7	190
2006	69	56	17	142
2007	88	63	32	183
2008	59	75	34	168
2009	1	36	28	65
2010	—	—	—	—
2011	13	46	20	79
2012	10	21	15	46
2013	3	21	15	39
2014	9	32	16	57
2015	24	46	16	87

(Source: National Profile on Occupational Safety and Health Myanmar by ILO)

(Note: Data for 2010 is not available)

The statistics of the occupational Accidents for the last 15 years shows a peculiarity that although the number of minor injury decreased drastically, serious injury and especially fatal cases have not decreased. It is thought that the reliability of the statistic is doubtful.

As of 2014, there are approximately 17,100 factories in Myanmar. Out of those, 16,342 factories (95%) are small and medium size. The Factory Act is applied to all the factories and about 440,000 workers are working there. This number represents only 10% of all the worker which are estimated as about four million workers (13.1.1. (7)) in the manufacturing industry. The difference is presumed as mainly due to the large ratio of workers in informal sectors.

13.5. Reporting of Accidents and Actions to Take

- The employer shall inform to the relevant township social security office immediately if an insured worker gets serious employment injury, including fatal case.
- Moreover, it shall be informed at the same time to the relevant township or district FGLLID office within 72 hours, and within 24 hours for fatal case, in the prescribed form.
- The OSH inspector and the officer-in-charge of the township social security office shall, when he is informed by the employer or he comes to know about the occurrence of occupational accident, go down to the relevant establishment to inspect, find root cause and can decide that it is an employment injury or not.
- The employer shall, if the employment injuries or occupational diseases occur due to his failure to ensure necessary arrangements or protection measures for occupational safety and health of workers, incur cash and other benefits for which the insured persons have the right to enjoy.

13.6. Supervision and Inspection by the Government

The organization for inspection consists of Factory Inspectors and General Labor Laws Inspectors and their assistants which counts only 76 staff in all, and they have to inspect approximately 17,000 factories.

Inspectors are conducting inspection in accordance with the quarterly inspection plan, and each inspector is to inspect 20 factories every month. But even by doing so, it is barely enough 2,000 factories a year. Thus, they are conducting inspection for factories with high risks and those which have repeatedly experienced serious accidents as priority.

In addition to inspection, Factory Inspectors are executing investigation for exploring root causes of the accident and instructing prevention measures for recurrence

13.7. Safety and Health Education

The framework is that FGLLID conducts education and training on occupational safety and health. But ILO is skeptical to the framework. (ILO comments it as “in propaganda”.)

The activities of education and training are as follows;

- Making training programs for the safety and health staff of various industries
- Conducting safety education for in-company training at industry establishments
- Conducting safety education for manager training at other ministries
- Conducting safety and health training for committee members, supervisors and workers at the safety and health committee of various industries

Table 13.2 Safety and Health Training Result by FGLLID

Year	Number of Times	Participants
2004	16	650
2005	7	397
2006	30	1022
2007	30	1010
2008	31	1025
2009	34	1336

(Source: National Profile on Occupational Safety and Health Myanmar by ILO)

FGLLID is sending factory inspectors abroad to participate in the training in order to gain a qualification of occupational safety and health so that they can cope with advancing technology and new hazards at workplaces. Those training abroad are being conducted by the ASEAN countries such as Singapore, Malaysia and Philippines.

The government of Myanmar is proposing the Philippines to carry out Third Country Training Program (TCTP) for capacity building of occupational safety and health through the framework of J-Seam (Japan-South-South Cooperation).

13.8. Qualification System for Occupational Safety and Health

The system of qualification for occupational safety and health could not found to exist by the investigation. But it is reasonable to infer that there is no unique qualification system of Myanmar because FGLLID sends staff abroad to gain the qualification.

13.9. Occupational Accident Compensation System

Workmen's compensation for occupational accidents is stipulated by Workmen's Compensation Act, 1923. Because the amount of compensation has been already far outdated, they were revised by Notification N0.1, 2005 as follows;

- Targeted workers are whose monthly income is less than 40,000 Chat.
- Payment for death: 150,000~450,000 Chat (450,000 Chat = 350 U.S. Dollar, converted by the rate in 13.1.1. (6). The range of payment depends on the monthly income at the time of accident.)
- Payment for permanent disability: 200,000~600,000 Chat
- Compensation pension for surviving family: Monthly pension may be paid to his widow until she dies or remarries. His children are entitled to the pension until they reached 13years or 16years of age, if they continue a course of education.

For non-insured workers who are not covered by the social security scheme, Workmen's Compensation Act, 1923 places the liability of compensation in case of a work related accident on the individual employer.

Contribution rate of the insurance premium is shown in the table below.

Table 13.3 Burden Ratio of Insurance Premium

Insurance System	Contribution Rate		
	Employer	Employee	Total
Health and Social Care Insurance System	2%	2%	4%
Employment Injury Insurance System	1%	0%	1%
Invalidity Benefit, Superannuation Pension Benefit and Survivors' Benefit Insurance System	3%	3%	6%
Unemployment Benefit Insurance System	1%	1%	2%

13.10. Priority Issues in OSH Field

In Myanmar, the government expresses that they are working to conduct the measurement of workplace environment and the occupational safety and health management system. They also say that the OSH management system has been introduced to about 900 workplaces.

The government of Myanmar recognizes the following items to be solved.

- a. No OSH expert (Not in short but non-exist as the government recognizes.)
- b. Budget constraint
- c. Lack of cooperation and coordination among the OSH responsible agencies and occupiers
- d. Out-dated existing legislation on OSH
- e. Lack of activities of the existing industrial hygiene laboratories

13.11. Status of Cooperation for OSH Field by International Organizations and Donors

(1) Relation with International Labor Organization (ILO)

Myanmar became a member of OLO 1n 1948 after regaining its independence. Myanmar received financial and technical assistance in the field on OSH from ILO. So far Myanmar has ratified 19 nos of ILO convention.

(2) Cooperation with ASEAN-OSHNET

Myanmar became a member of ASEAN-OSHNET in 2000 with the Director General of Factories & General Labor Laws Inspection Department (FGLLID) as the representative.

FGLLID actively participates in implementation of respective OSH program area with designated coordinator countries as follows.

- Thailand for Information
- Philippines for Training
- Malaysia for Standard
- Indonesia for Research
- Singapore for Inspection
- Vietnam for OSH Framework

14. LAOS

14. Basic Information on OSH in Laos

14.1. Profile of Laos

Lao People's Democratic Republic (hereinafter referred to as Laos) is an inland country located in the central part of the Indochinese Peninsula. In October 1953, Lao was completely independent from France. It is surrounded by Myanmar in the north, Vietnam and Thailand in the east and west, Cambodia in the south, and borders with five countries. The Mekong River flows north and south of the country over 1,900 kilometers, most of which is the border with Thailand. It is a multiethnic country consisting of about 50 ethnic groups, and the Lao tribe occupies more than half of the total population. The People's Revolutionary Party is the leadership party and the party secretary is the chief of the state.

14.1.1. Official name of the country

Lao People's Democratic Republic

14.1.2. Area and Population

Area : Approx. 240,452 km²

Population : 6,492,228 people (PHC, Lao statistics Bureau, 2015)

Table 14.1 Population, Area and Population density by provinces

Province name	Municipality	Population (people)	Area (km ²)	Density (people/km ²)
Vientiane Capital	Vientiane	820,940	3,920	209
Phongsaly	Phongsaly	177,989	16,270	11
Luangnamtha	Namtha	175,753	9,325	19
Oudomxay	Xay	307,622	15,370	20
Bokeo	Huoiyai	179,243	6,196	29
Luangprabang	Luangprabang	431,889	16,875	26
Huaphanh	Xamneua	289,393	16,500	18
Xayabury	Xayabury	381,376	16,389	23
Xiengkhuang	Pek	244,684	15,880	15
viengkham	viengkham	419,090	15,927	26
Borikhamxay	Pakxane	273,691	14,863	18
Khammuane	Thakhek	392,052	16,315	24
Savannakhet	KaysonePhomvihane	969,697	21,774	45
Saravane	Saravane	396,942	10,691	37
Sekong	Lamarm	113,048	7,665	15
Champasack	Pakse	694,023	15,415	45
Attapeu	Samakkhixay	139,628	10,320	14
Xaysomboon	Anouvong	85,168	8,300	10

(Source: Results of Population and Housing Census 2015, Lao statistics Bureau, Laos)

14.1.3. Capital (Population, Location)

Name of Capital : Vientiane

Population : 820,940 people

Latitude : 17.97N, Longitude : 102.60 E

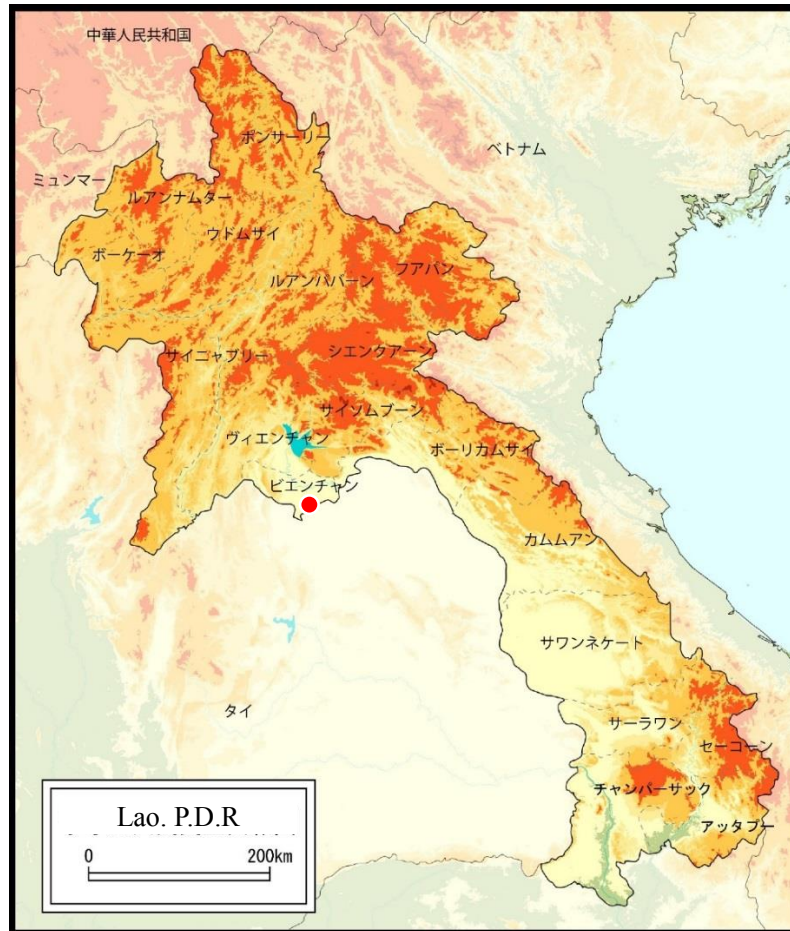


Fig.14.1 Map of Laos (by Study Team)

14.1.4. Climate, Temperature

Vientiane : Tropical wet and dry climate

Highest Temp. : 34°C Lowest Temp. : 28°C Annual rainfall : 1,661mm

14.1.5. Religion, Language

Religion : Buddhism

Language : Lao, Khmu and Hmong

14.1.6. Currency

Kip (1USD = 8,117LAK, 2015)

14.1.7. Labor force

Overall Labor population : 3,540 thousand people (15 years+)

Agriculture, Forestry and Fishery : 2,500,796 people
Construction : 103,102 people
Manufacture : 123,060 people

(Source: PHC, Lao Statistics Bureau, 2015)

14.1.8. GDP

Nominal GDP : 1.17billion USD (2014)
Nominal GDP per capita : 1,947 USD (2015)
Real GDP Growth rate : 7.0% (2015)

14.1.9. International Balance of Payment

Current Balance : Δ1,435million USD (2015)
Trade Balance : Δ2,611 million USD (2015)
Foreign Currency Reserve : 987 million USD (2015)
External debt balance : 12,181 million US (2014)

14.1.10. Investment Status

Direct investment inflows : 60.2 billion USD (2015)
Amount of Direct investment from Japan : 25,000 thousand USD (2015)

(Source: Global Trade and Investment report, JETRO)

14.1.11. Japan's vs. Laos economic cooperation record

Yen Loan : 23.1 billion yen
Grant Aid : 135.4 billion yen
Technical Cooperation : 60.7 billion yen

(Source: MOFA website)

14.2. Legal System and Institution on OSH

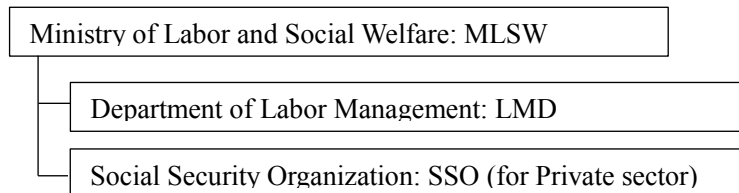
Note: Data on OSH in Laos obtained by Web survey described in this report includes those up to 2003.

This report has been described from the data based on English site such as ILO.

14.2.1. Institution Framework on OHS

(1) Ministry of Labor and Social Welfare: MLSW

MLSW has seven departments and a ministerial office, and the Department of Labor management (LMD) in charge of OSH administration. Regulation No. 2405 (August 2000 / Minister of LSW) refers to the organization and activities of the Labor Bureau.



(2) OSH Administration of central/ provincial government

According to the Labor Law enacted in 2013, OSH administration hierarchy is defined as follows.

- Ministry of Labor and Social Welfare (Central organization to nationally management)
- Labor and social welfare department of each province
- The labor social welfare department of each district and municipality
- The Labor Division of community –level and Social Welfare Office

14.2.2. Legislative frameworks for occupational safety and health

(1) Labor Law (No.43/NA, Dec, 2013)

This law defines the principles, regulations and measures on administration, monitoring, labor skills development, recruitment, and labor protection in order to enhance the quality and productivity of work in society, so as to ensure the transformation to modernization and industrialization aimed at safeguarding the rights of employees and employers, as well as the legitimate interests and the continual improvement of their livelihoods, while contributing to the promotion of investment, national socio-economic development, and regional and international links.

(2) Decree No. 207/PM dated 23 December 1999, on Social Security System for Enterprise Employees

Under this decree, the minimum wage amount for workers, and the compensation according to the injury situation of workers at the time of occupational accidents are stipulated. The social security system for civil servants is stipulated in Decree No. 70 and administrated by the State Authority for Social Security (SASS).

14.2.3. Other institutions related to occupational health and safety administration

Primary organizations related to occupational health and safety are shown below.

(1) National Ministries/ Organizations

- MPH (Ministry of Public Health)
- MIT (Ministry of Industry and Trade)
- MFC (Ministry of Forestry and Agriculture)
- MPWH (Ministry of Public Work and Transportation)
- LNCCI (Lao National Chamber of Commerce and Industry)
- LFTU (Lao Federation on Trade Union)
- CC-OSH (Central Committee on Occupational Safety and Health)

(2) Local institutions related to occupational safety and health administration

There are related institutions in each area as well as those of the above-mentioned countries in the rural areas. (See Table 14.3-1 "1. Establish Occupational Safety and Health Organization at Provincial Level" Implementing organization name)

14.3. National Policy on Occupational Safety and Health

(1) 2nd National Occupational Safety and Health Program year 2011- 2015

In 2011, Ministry of Labor and Social Welfare of Lao PDR approved the 2nd National OSH Program (2011-2015) which was supported by ILO. The program has been developed for promotion and improving OSH and ensuring better working conditions and safe workplaces for all workers.

■ Mission of the Program

- Developing the mechanism of policy and legislative framework to support employers' and workers' efforts to make advance progress on occupational safety and health at workplace.
- Promoting and providing OSH protection and training to all workers
- Assisting all workers to create the mechanism system on OSH administration and management effectively.

Table 14.2 Priority Majors activities and Implementing organizations

Major Plan		Implementing
1	Establish Occupational Safety and Health Organizations at Provincial Level.	<ul style="list-style-type: none"> - Provincial Department of Labor and Social Welfare (DLSW); - Provincial Federation of Trade Unions (FTU) - Local Chamber of Commerce & Industry Province (LCCI) - Provincial Public Health Department (PHD) - Provincial Industrial and Trade Department (ITD) - Provincial Public Work and Transportation Department (PWTD) - Provincial Energy and Mine Department (PEMD) - Provincial Education Department (ED) - Local Water Resource and Environment

		Administration of province (WREAP) - Committee's Office, Provincial Labor Protection Section.
2	Enact Essential Occupational Safety and Health (OSH) Legislation.	- Labor Management Department (LMD), Ministry of Labor and Social Welfare (MLSW); - Lao Federation of Trade Unions (LFTU); - Lao National Chamber of Commerce and Industry (LNCCI); - Central Committee on Occupational Safety and Health (CC-OSH).
3	Capacity Building for Occupational Safety and Health Staff.	- MLSW; - LFTU; - LNCCI; - Ministry of Public Health (MPH); - Ministry of Industry and Trade (MIT); - Ministry of Forestry and Agriculture (MFC); - Other concerning sections.
4	Strengthen Occupational Safety and Health Inspection.	- MLSW; - MPH; - MIT; - Ministry of Public Work and Transportation (MPWT); - Water Resource and Environment Administration (WREA); - LFTU; - LNCCI; - Other sections.
5	Improve Work Accident and Occupational Diseases Reporting Systems	- LMD, Social Security Department (SSD), Social Security Organization (MLSW); - Hygiene and Prevention Department, MPH; - Industry Department, MIT; - Electricity and Mine Departments, Ministry of Energy and Mine (MEM); - Road & Bridge Department (RBD), Housing & Urban Planning Department (HUPD), MPWT; - Ministry of Information and Culture (MIC); - LNCCI; - LFTU; - Provincial DLSW and District office of Labor and Social Welfare (OLSW); - Enterprises; - Other Concerning sections.
6	Occupational Safety and Health Research and Development.	- MLSW; - LFTU; - LNCCI; - MPH; - OSH Committee; - Provincial LSWD and district OLSW.
7	Control and Prevention Work Accidents and Occupational Diseases.	- LMD, SSD, SSO, MLSW; - Hygiene and Prevention Department, MPH; - Industry Department, MIT; - Electricity Department, Mine Department, MEM; - RBD, HUPD, MPWT;

		<ul style="list-style-type: none"> - LFTU; - LNCCI; - Provincial LSWD and District OLSW; - Enterprises; - Other Concerning sections.
8	Occupational Safety and Health Promotion and Dissemination.	<ul style="list-style-type: none"> - LMD, SSD, SSO, MLSW; - Hygiene and Prevention Department, MPH; - Industry Department, MIT; - Electricity Department, Mine Department, MEM; - RBD, HUPD, MPWT; - MIC; - LFTU; - LNCCI; - Provincial LSWD and District OLSW; - Enterprises; - Other Concerning sections.
9	Study and Research for Establish Occupational Safety and Health Institute.	<ul style="list-style-type: none"> - MLSW; - LFTU; - LNCCI; - Other concerning sections.

(Source: National Profile of Occupational Safety and Health in Lao PDR)

14.4. Inspection Systems

Based on the draft of the “agreement of labor inspection” there are no occupations/workplaces which are excluded from OSH inspections. Throughout the entire country there are 188 labor inspectors who are under the labor division of the provincial and district levels. Labor inspectors not only have specific roles to inspect factories. Most of these inspectors also have other responsibilities. They also work in management since there are not a sufficient number of officers. Besides the inspectors under the MOLSW, The inspectors of the Lao Federation of Trade Union (LTFU) also conducts inspection. However, the LTFU has faced with a challenging case in promoting the cooperation from employers in inspecting enterprises.

Table 14.3 Number of Inspector (2003)

No.	Provinces/Division of Labour and Social Welfare	Number of inspections	Workplaces at provincial labour division	Workplaces at labour office district level
1.	Division of Labour Management	4		
2.	Sekong	5	1	4
3.	Attapeu	5	1	4
4.	Xayabuly	20	5	15
5.	Vientiane	12	2	10
6.	Saravan	9	1	8
7.	Savannakhet	14	1	13
8.	Champasak	13	3	10
9.	Khammouane	12	2	10
10.	Luang Prabang	15	2	13
11.	Luang Namtha	6	1	5
12.	Oudomxay	9	2	7
13.	Houaphan	9	1	8
14.	Phongsaly	3	3	0
15.	Xiengkhuang	9	2	7
16.	Vientiane Capital	24	6	18
17.	Bolikhamxay	7	2	5
18.	Bokeo	9	4	5
19.	Saysomboun Special zone	3	1	2
	Total	188	40	144

14.5. Social Security System

Social Security System administrated by SSO has covered Employees of private-sector and state-owned enterprises with 10 or more employees, and pensioners. (Exclusions: Self-employed persons and employees of embassies and international organizations in Laos.) Source of Funds are contributed 4.5% of gross monthly earnings by insured person and 5.0% of monthly payroll by employer.

In the case of temporary disability by work accident, the benefit is 100% of the insured's average covered earnings in the 6 months before the disability began and is paid for up to 6 months; thereafter, 60% for up to 12 months. In the case of permanent disability by work accident, the monthly benefit is the percentage of permanent loss of earning capacity multiplied by 67.5% of the insured's average covered earnings in the last 12 months before the disability began. The Social Security Organization assesses the disability, which is reassessed every 3 years.

A lump sum of the deceased's average covered earnings in the 6 months before death is paid. The benefit is paid to the relatives who pay for the funeral.

(Source: Social Security Administration of US website)

14.6. Status of Cooperation for OSH Field by International Organizations and Donors

The ILO supported the MOLSW in organizing many OSH training workshops for small enterprises and construction sites.

The ILO Social Security Project supported several trainings on OSH (participants came from Lao Federation of Trade Union and Social Security Organization and Department), such as Training of Trainers, Follow-up activities. The same project also provided assistance to the trained trainers in organizing OSH training workshops at the enterprises.

In the past, Lao had some international cooperation activities in OSH based on bilateral projects/agreements which were supported by the German Technical Agency (GTZ) and Denmark government.

(Source: National Profile of Occupational Safety and Health (OSH) of Lao PDR, 2003)

15. SRI LANKA

15. Basic Information on OSH in Sri Lanka

15.1. Profile of Sri Lanka

Sri Lanka is a republican nation located in the south east of the Indian subcontinent. It gained independence from England as Ceylon in 1948, and changed the name of country to Sri Lanka in 1978.

In Sri Lanka, the civil war broke out with the anti-government armed group “Liberation Tigers of Tamil Eelam (LTTE) in 1983 which aimed for independence of the north and the east part of the country. The civil war lasted until May, 2009 for more than 25 years when the government troops brought LTTE under control.

In the coming of unification and peace, Sri Lanka realized a rapid economic development by reconstruction demand and revival of tourism, such as GDP growth of over 8% in 2010 and 2011.

GDP per capita increased approximately twofold in five years between 2005 and 2009. Poverty rate decreased from 15.2% to 7.6% and unemployment rate improved from 7.2% to 4.9% in the same period. However, poor classes in a broad sense living with less than two US Dollars a day still count 5.66 million at the time of 2011, which is equivalent to 25% of the entire population.

15.1.1. Official Name of the Country

Democratic Socialist Republic of Sri Lanka

15.1.2. Area and Population

Area: 65,610 km² (approx. 0.17 times of Japan)

Population: 20.96 million (Central Bank of Sri Lanka: 2015)

Structure of Race: Sinhalese (73%), Tamil (18%), Others (9%)

15.1.3. Capital (Population, Location)

Sri Jayawardenepura Kotte

Population: 0.135 million (Colombo: 0.65 million, 2012)

Latitude: 6.52N, Longitude: 79.54E

15.1.4. Climate, Temperature

Tropical Monsoon Climate: Rainy season (April ~ June, October ~ November)

Dry season (January ~ March, July ~ September)

Colombo: The mean highest temperature: 31°C, The mean lowest temperature: 23°C

15.1.5. Religion, Language

Religion: Buddhism (70%), Hindu (10%), Muslim (8.5%), Christian (11.3%)

Language: Sinhala/Tamil (Official Language), English

15.1.6. Currency

Rupee: 1 U.S. dollar = 146 Rupee (mean value in 2014)

15.1.7. Number of Workers (2012)

Overall Industry	: 8.460 million
Agriculture	: 31%
Manufacturing & Mining	: 26%
Service	: 43%

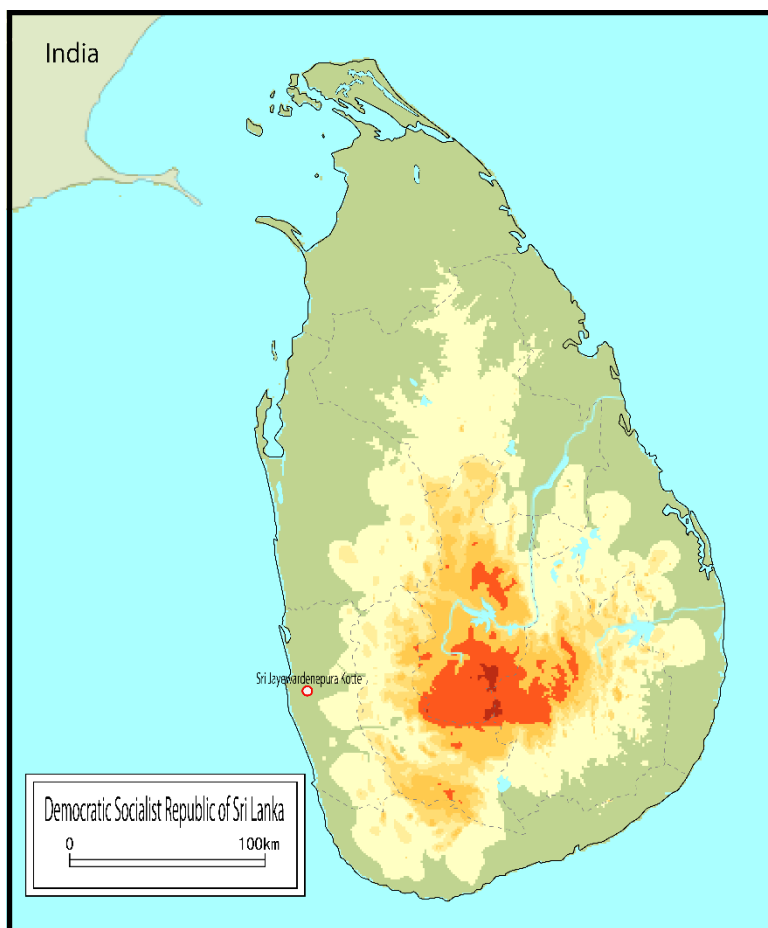


Fig.15.1 Map of Sri Lanka (by Study Team)

15.1.8. GDP (2015)

Nominal GDP	: 82.0 billion U.S. dollars
Nominal GDP per capita	: 3,889 U.S. dollars
Real GDP Growth Rate	: 5.2%

15.1.9. International Balance of Payment (2014)

Current Balance (International balance of payment base)	: Δ 2.018 U.S. dollars
Trade Balance (International balance of payment base)	: Δ 8.287 U.S. dollars
Foreign Currency Reserve	: 7.316 U.S. dollars
External Debts Balance	: 53.164 U.S. dollars

15.2. Legal System, Institution for Occupational Safety and Health

(1) Occupational Safety and Health Law

At present in Sri Lanka, there is no Law/Act equivalent to the Industrial Safety and Health Law in Japan. So far, Factories Ordinance No.45, 1942 and National Environment Protection Act, 1980 are assuming the role. The Factories Ordinance is mostly derived from the laws and acts of the U.K. which was the former colonial power, however it has been used with necessary revisions through the passage of time.

The Sri Lank government is now working for updating of the Ordinance with the cooperation of ILO widening its coverage from factories to the entire industries including construction.

As of 2014, the government of Sri Lanka is establishing a new Safety, Health and Welfare Act. The Act has already been approved by the cabinet and is going to be submitted in order to obtain a vote in the Diet. Prior to it, the Department of Labor and Labor Relations established the National Safety and Health Policy in June, 2014.

(2) Regulation for Construction Equipment and Facilities

At the present time, there is no criteria regarding quality standard for construction equipment. As for driving operation of construction equipment, they have qualification system for cranes and chief electrical engineer, but no qualification for slinging.

The Road Traffic Ordinance legislated by the Ministry of Transport (MOT) stipulates for transportation of construction equipment.

15.3. Institutional Framework on OSH

The institutional framework for occupational safety and health in Sri Lanka used to consist of several ministries such as the Ministry of Labor, Invalid and Social Affairs (MOLISA) and the Ministry of Health (MOH), however, presently, the Ministry of Labor (MOL) is in charge of the occupational safety and health issues. Labor standards and standard for safety and health are established by the said ministry. (For the organization chart, refer to Fig.15.2)

Divisions in charge in the Ministry for OSH are the Industrial Safety Division and the Occupational Hygiene Division. The District Factory Inspecting Engineers to whom accident reports are obliged to submit are belonging to the Industrial Safety Division.

The government of Sri Lanka is expanding administrative functions for OSH, such as establishing the National Institute of Occupational Safety and Health (NIOSH) which is planning and managing OSH seminar and training for employers and trade unions. And NIOSH is conducting development of safety officers in order that they can work in each industry.

Also, the National Occupational Safety and Health Advisory Council is planned to establish to solve the problems in building consensus between people concerned regarding occupational safety and health issues.

Roles of Industrial Safety Division

- Inspection of factories

- Registration of factories
- Approval of building plans
- Investigation of accidents
- Attend coroners' courts to give expert evidence
- Investigation of complaints
- Institute legal actions
- Conduct safety awareness programs
- Analysis of accidents
- Appointment of authorized officers

Roles of Occupational Hygiene Division

- To promote and maintain highest possible level of physical, mental and social well being of the Sri Lankan workforce.
- To prevent workers deviating from good health to ill health due to exposure to hazards and risks encountered at work.
- To provide consultancy, advisory and advocacy services on occupational health
- To provide training, educational and awareness programs on occupational health
- To provide environmental and biological monitoring facilities to industries
- To embark on research activities aimed at improving occupational health of workers.

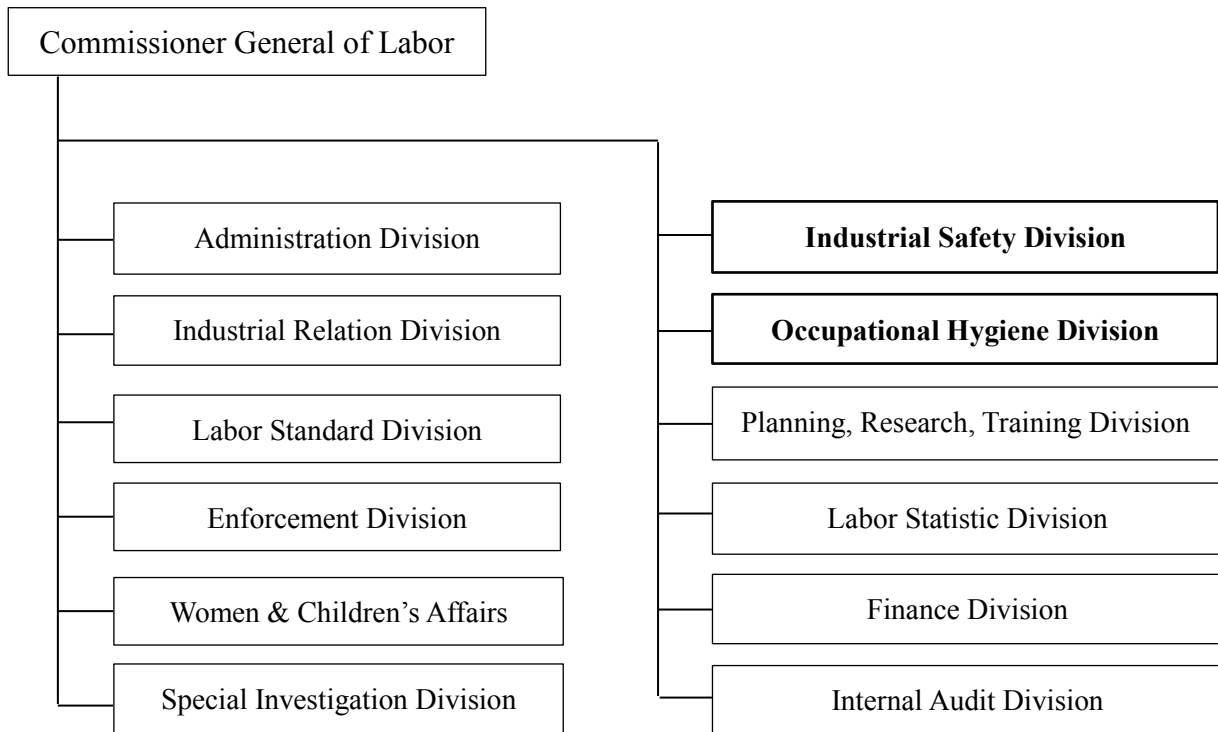


Fig.15.2 Organization Chart of Ministry of Labor

15.4. Status of Occupational Accidents in Sri Lanka

According to “Labor and Social Trend in Sri Lanka 2009” compiled with the cooperation of ILO, the statistic of occupational accidents in Sri Lanka from 2004 to 2008 is as the following table below.

Table 15.1 Number of Occupational Accidents and Fatalities

	2004	2005	2006	2007	2008
Occupational Accident	1,165	1,566	1,740	1,755	1,523
Fatality	36	48	84	77	49

(Source: Labor and Social Trends in Sri Lanka 2009)

In general, workers’ compensation systems are not established or functioning well in developing countries (for example, in Indonesia, the rate of participants to their system is presently around 10%), thus the actual situation is that only employers who can claim the insurance, report the accident.

Although the real rate of insurance participation in Sri Lanka could not be confirmed in this study, it must be reasonable to presume that the number of accidents reported shows only a part of actual number, considering the real situation such as many workers without the proper personal protection equipment in construction sites.

15.5. Reporting of Accidents and Actions to Take

(1) Accident Reporting System

Factories Ordinance No.45 of 1942, PART IV Article 6 stipulates the obligation for reporting of occupational accidents by the employers to the Ministry of Labor (to District Factory Inspecting Engineer). Accidents to be reported are as follows;

- Fatal accident
- Accident with workers absent more than three days due to the injury
- Occurrence of unconscious worker (due to heat, electric shock, fatigue, respiratory distress, toxic gas)

Act No.6, 1995 stipulates that in case of a grave accident such as involving death or several severely injured, the spot shall be preserved and report (verbal) shall be made immediately. The written report shall be submitted within 24 hours after the occurrence.

In each sector, the client of a project knows that it has to report any occurrence of accident to the Ministry of Labor. But the Ministry of Labor sometimes acquires information of accident from media reports or the report from its regional officers, hospitals, the police, or report from other ministries. In fact, the reports vary among administrative organizations which can be the clients, and the Ministry of Labor would like to improve collection and accumulation of accident information.

For accidents in construction sites, the police intervene in accordance with Penal Code Section 298 “Accidental Death” only in case fatal accidents are reported.

(Source: Safety Review Report of On-going ODA Project (STEP) in Sri Lanka 2014: JICA)

(2) Actions for Accident Report

When an occupational accident occurred, the Industrial Safety Division of the Ministry of Labor conducts investigation, and instructs necessary improvement based on the investigation result.

The Road Development Authority (RDA), from a client's point of view, commented on the general situation of construction safety in Sri Lanka as follows;

(Source: Safety Review Report of On-going ODA Project (STEP) in Sri Lanka 2014: JICA)

- Poor management commitment of main contractor towards safety
- Lack of technical skills of safety management
- Poor responses to correct lapses highlighted and inability to learn from accidents already happened
- Poor control and education on sub-contractors repeating lapses
- Safety performance/references not considered in selecting subcontractors and equipment service providers
- Proper system needs to be introduced to certification of plants and equipment deployed at the site

RDA also expressed their view on the situation as follows;

- Accident reporting is much lesser than the actual due to various reasons, which is causing the situation that no investigation is conducted and no countermeasures for preventing recurrence is taken.
- Because accident investigations to figure out the cause of the accident are not properly implemented, the root causes are not identified at all. This situation is interfering the management to take necessary actions to prevent recurrence of further accidents.
- Even when a work with high risk on safety are about to start, a risk assessment is seldom conducted.

(3) Penal Provisions

There is a penal provision based on the regulation against companies which caused accidents, however, penalty is limited for only petty fines. There are cases to levy fine of 100,000Rp (less than 700U.S. dollars) for the company which caused a grave accident, but there is no penal provision of suspension of the bid qualification and a similar kind. The fine for neglect of reporting of a grave accident is 5,000Rp according to the present provision. The Ministry of Labor is said that they are considering to review the penal provision which was never revised since establishment of the Factories Ordinance.

Reporting of accident is mandatory, however, it is a fact that there are so many unreported accidents. Violation of this rule would cause inflicting punishment of fine or in some case, imprisonment by prosecution with the approval of the Commissioner General of Labor.

15.6. Supervision and Inspection by the Government

Industrial Safety Division of the Ministry of Labor is in charge of inspection of factories. In addition to that, National Institute of Occupational Safety and Health (NIOSH) is also conducting inspections specialized for occupational safety and hygiene and instructing employers for improvement.

These inspections have the ground on the following regulations.

- Factories Ordinance No.45, 1942
- Shops and Office Workers Act No.19, 1954
- Industrial Dispute Act No.43, 1950
- National Industrial Safety and Health Association Act No.38, 2009

There are two categories of inspectors, namely, the General Inspector and the Factory Inspector. They are performing their duties almost independently (with little cooperation). Their role includes, in addition to enforcement of laws and regulations, participating in arbitration and cooperating for collecting the Employees Provident Fund which is the major social security system for general people.

In order to become an inspector, the candidate is required to have an educational background of graduation from university or experience of working in the Industrial Safety Division.

The inspections for workplaces consist of those done according to the inspection plan, done coping with complaints and those done by inspectors with various specialties. In this case, a team is put together by gathering specialists from various divisions.

At present, the government of Sri Lanka is improving the industrial inspection system with cooperation of ILO. The main contents are as follows;

- To develop inspection methods for preventing problems
- To encourage to acquire the qualification of Industrial Inspectors
- To increase the number of Industrial Inspectors (including women)

15.7. Safety and Health Education

(1) Safety and Health Education Organizations

As for organizations conducting education and human resource development regarding occupational safety and health, the Ministry of Youth Affairs & Skills Development is implementing activities for vocational training directed at young people. There are 18 groups which conduct various vocational trainings (Public Trainings).

NIOSH which was explained in 15.1.3. and 15.1.6. is intending for improvement of safety awareness of people concerned with industries through studying and conducting safety and health trainings. NIOSH is, actually training safety officers, with one-year program consisting of four components (Occupational Safety for Engineering Aspects, Occupational Health, Occupational Health Management Systems, Research Project), and the participant who completed the entire course receives a certification as Qualified Safety Officer.

(2) Implementation of Safety and Health Education

The Ministry of Youth Affairs & Skills Development has prepared about 110 “Skill Standard”, and is implementing four major vocational trainings for young people.

The training programs follow the National Vocational Qualification Framework which is recognized internationally. If the training programs which are under preparation are completed, it means that the National Vocational Qualification System has been established, and seven levels of programs are completed. The programs include “Diploma Level” and “Certificate Level” as well. Trainings are conducted in accordance with the course curriculum in each course which includes safety issues.

As for the training course of construction, courses such as masonry, piping and other construction works have been prepared, and each course has Diploma Course and Certificate Course respectively.

In addition, skill training is also conducted at technology universities. Sri Lanka intends to develop human resources who can manage safety in various industries without limiting fields, thus it trains safety officers at NIOSH by one-year course.

15.8. Qualification System for Occupational Safety and Health

In Sri Lanka, the national qualification system of occupational safety and health is established for mainly works in factories such as boiler operation, crane/forklift, explosive handling and other high-risk equipment operations. In order to educate Safety Manager who is responsible for safety management at workplace, training is conducted and recognized completion of training (Diploma and Certificate), however, it is not accredited as a national vocational qualification.

ICTAD (Institute for Construction Training and Development: established by the World Bank Fund) is an organization for especially construction, and is conducting training for operation of construction equipment and so on.

15.9. Occupational Accident Compensation System

Occupational accident compensation in Sri Lanka is based on Workmen’s Compensation Act, 1935 (the latest revision: Act No.10, 2005).

Accidents subject to the Act are fatal accidents and accidents that require time off from work more than 3 days. Outline of compensation is as follows;

- Death protection: 181,665~550,000 Rupee (The amount depends on the average monthly wage of the victim.)
- Total incapacity for work by after-trouble: 196,083~550,000 Rupee (550,000 Rupee = approx.3,700 U.S. dollars, converted by the rate in 15.1.1. (6), the amount depends on the monthly wage of the victim before the accident.)
- Partial incapacity for work by after-trouble: 1,320~5,500 Rupee/month (The amount depends on the degree of incapability and the average monthly wage of the victim.)

Contractor is presently responsible even for the accidents due to trespassing the construction site by local

residents. The owner has to judge to prevent outsiders from intruding into the site by schemes such as providing fence around the site.

Private insurance companies are providing various insurance for employers who are not participating the public compensation system. In case of the Road Development Authority, there is RDA Insurance for RDA staff which RDA participates as an organization. There is Contractor's Insurance as well.

Workers belong to contractors are covered by Contractor's Workers Compensation, thus, all people related to the construction project are covered by the insurance. Amount of compensation is determined taking into consideration, degree of injury, degree of disability (in case of loss of physical functions), age, earning ability and so on.

There are three types in the Contractor's Insurance, namely Contractor's All Risks Insurance, Third Party's Insurance, Workman's Compensation. These insurances and compensation to be paid under the insurances are obligatory for all projects contracted based on the FIDIC agreement.

15.10. Priority Issues in OSH Field

The Ministry of Labor of Sri Lanka announced the National Occupational Safety and Health Policy in 2014. The Ministry acknowledged that there was no national policy for occupational safety and health before, and expressed the necessity of realization of comprehensive policy of occupational safety and health for prevention of work-related accidents.

The policy has a wide range of targets, covering preparation of legislations, its enforcement, database construction and education/training and so on, which count 16 items in total.

Among those items, the followings are required for prompt establishment and improvement.

i) Realization of the OSH Law and establishment of enforcement system

It was said that the Occupational Safety and Health Law will be presented to the congress as early as within 2015 (Safety Review Report of On-going ODA Project (STEP) in Sri Lanka 2014: JICA), however, the bill cannot be confirmed to have enacted at present. Prompt enactment of the Law which can be applied to every industry is expected.

ii) Improvement of capacity of OSH staff in the government and private establishment as well. (including supervision and inspection capacity)

iii) Enrichment of research institutions and facilities for occupational safety and health

iv) Improvement of the statistic of occupational accidents

The published statistic is far from reliable not showing the real situation of the country. As the effective prevention of occupational accidents starts from accurate statistic, it is required to construct a system which provides whole aspect of the situation.

v) Enrichment and dissemination of the Workmen's Compensation system

Although enrichment of the public insurance system for occupational accidents is not included in the national policy, the present situation in which many employers are totally responsible for the accident by law, but they have no other choice other than relying on private insurance with voluntary enrollment, shall be rectified. In addition, the system that workers are protected by insurance is not well known by people of the country, thus, spreading and enlightening of the system is necessitated.

15.11. Status of Cooperation for OSH Field by International Organizations and Donors

(1) Relation with International Labor Organization (ILO)

ILO Sri Lanka Office is cooperating with Sri Lanka government for ratification of ILO conventions No. 155 and No.187, and conducting seminars and training for change in awareness of occupational safety and health. In concrete, the Office conducted a training for Labor Officers regarding site inspections required for securing safety in the workplace.

In addition, the Office is conducting similar activities (2 days) for large-size construction companies, and is developing safety staff in charge of managing safety issues at workplace in cooperation with NIOSH (National Institute of Occupational Safety & Health).

(Reference 1) ILO Co No.155: Occupational Safety and Health Convention, 1981

ILO Co No.187: Promotional Framework for Occupational Safety and Health Convention,
2006

(Reference 2) ILO conventions ratified by Sri Lanka to date

ILO Co No.45: Convention concerning the Employment of Women on Underground Work in
Mines of all Kinds, 1935

ILO Co No. 115: Convention concerning the Protection of Workers against Ionizing
Radiations, 1962

(2) Asian Occupational Safety and Health Research Institute Meeting: AOSHRI Meeting

In October, 2016, the 6th AOSHRI Meeting was held in Colombo, Sri Lanka. The objective of AOSHRI Meeting is to promote the following four activities regarding occupational safety and health, gathering representatives from research institutes in Asia. The first meeting was held in Japan in 2004.

Participating countries of the 6th meeting were Sri Lanka, Singapore, Taiwan, Vietnam, Malaysia and Japan.

Activities by AOSHRI Meeting

- To discuss about research activities of occupational safety and health issues implemented in the OSH research institutes in the countries/regions of Asia.
- To share information among the institutes for further activities.
- To construct international network for sustainable cooperation among the institutes.

- To promote international cooperation system for solving various problems of occupational safety and health.

16. BANGLADESH

16. Basic Information on OSH in Bangladesh

16.1. Profile of Bangladesh

- The Bangladesh economy achieved an economic growth of 7.11% in fiscal 2016 (July 2015-June 2016). The factors in the background include stable increase in exported sewn goods and remittance from workers overseas and the stable growth of the agricultural sector. On the other hand, the economy largely depending on exported sewn products and remittances from overseas workers is structurally vulnerable. Therefore, to achieve sustainable development in the years to come, diversification of industries is a major challenge for Bangladesh. Also, to promote investment from overseas, it is urgent for the country to develop basic infrastructure such as electric power and road networks.
- Bangladesh's fiscal budget has been in chronic deficit (the ratio of the fiscal deficit to GDP was at 5.0%, 5.0%, and 5.0% for FY 2014, 2015, and 2016, respectively), which they have filled with foreign aids and debts from domestic banks, etc. This is mainly due to the government's poor ability to collect taxes and vulnerable revenue base and to coverage by the government of deficits of inefficient state-owned enterprises.
- The budget mainly consists of the revenue budget and the annual development program budget. In the 2017 fiscal year (July 2016- June 2017), budget drafts are 1,889.6 billion taka and 1,170.2 billion taka, respectively, resulting in an extended total budget of 3,509 billion taka, an increase of 36.8% over the previous year as corrected. In the FY 2017 budget plan, 28.3% of the total budget is allocated to social development and 29.7% to infrastructure building projects. In social development, budget is most favorably allocated to human development (25.2%) while, in infrastructure building, to the development of agriculture and rural areas (13.6%), transportation (10.2%), and electricity and energy (4.4%).

(Source: Basic Data on Bangladesh People's Republic, MOF, partly revised)

16.1.1. Country Name

Republic of Bangladesh

16.1.2. Area & Population

Area : 147,570 km²

Population : 153.6 million (Source: Bangladesh Central Bank, FY 2012/2013)

As administrative units, the country is first divided into eight provinces (*divisions*), each of which subdivided into many districts (*zila*). It is these districts that are the main actors of local administration. There are more than 60 districts across the country. Each district is further subdivided into counties (*upazila*) and to administrative villages (*unions*), each made of several villages.

16.1.3. Capital City, Latitude & Longitude

Capital City: Dhaka

Population of Dhaka: 11.88 million (Estimate value in 2011 by Statistical Bureau)

16.1.4. Feature of Meteorology, Annual Temperature

in Dhaka Max. Temperature: 25 - 35 deg C Min. Temperature: 12 - 26 deg C

Feature of meteorology :

Rainy season : from March to May

Monsoon : from June to October

Dry season : from November to March

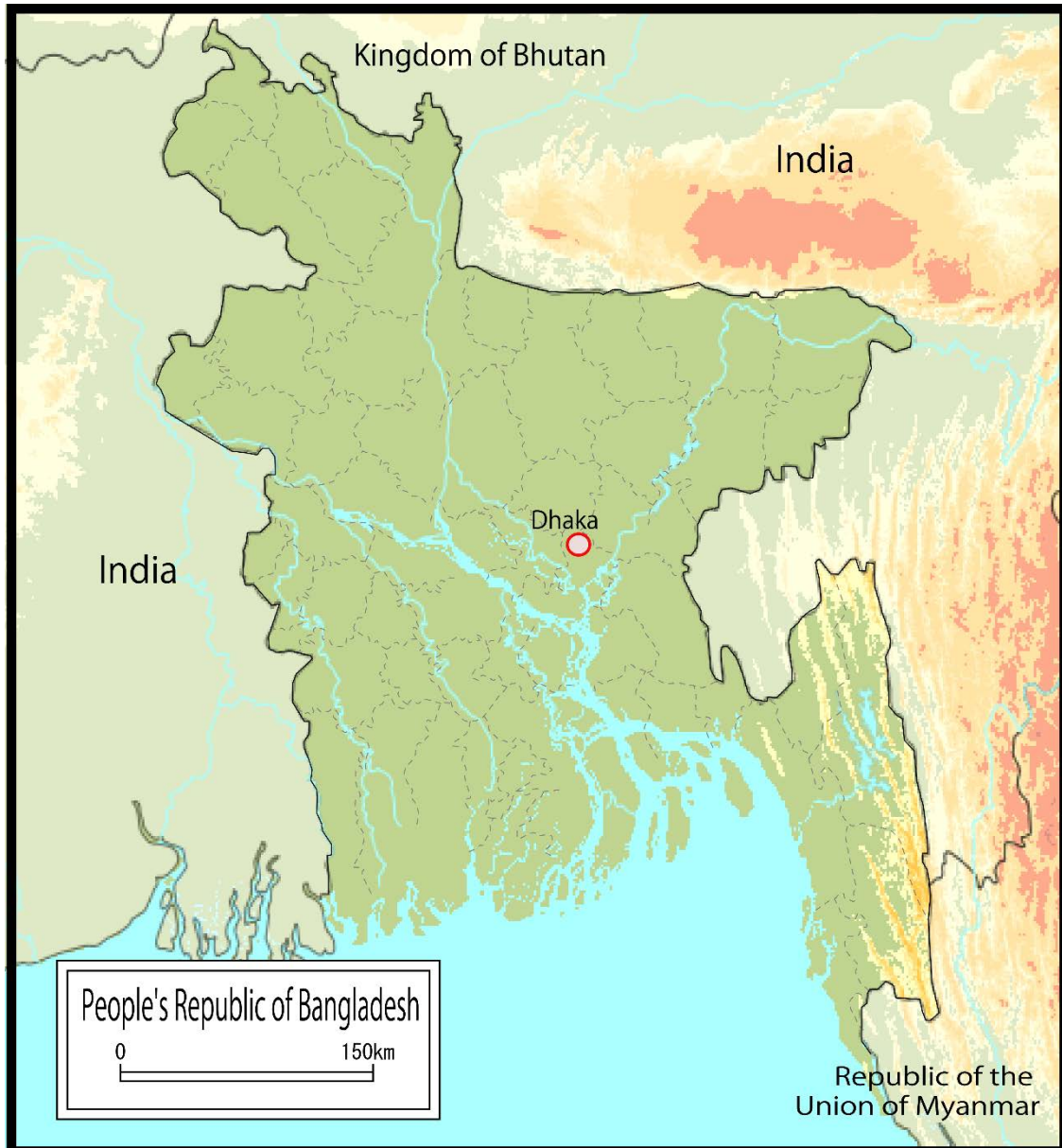


Figure 16.1 Map of Bangladesh (Source: JICA Study Team)

16.1.5. Religion & Language

Religion: Islam

National Language: Bengalee

16.1.6. Currency

Taka (1 taka = 1.42Yen December, 2016)

16.1.7. GDP (in 2015)

Nominal GDP: 205.07 billion US\$

GDP per capita: 1,287 US\$

Growth rate of real GDP: 6.4%

16.1.8. Industrial Composition

Since 2009, Bangladesh has kept an economic growth of above 6%. The factors in the background of this stable economic growth include a relatively balanced industrial structure (agriculture, forestry and fisheries industries 19.3%, industries such as manufacturing industry, electric power, mining, water supply, and construction industry 31.3%, service industries including commerce, transportation, communications, real estate, etc. 49.5%). In addition, the strong growth of export industries, in particular the export of sewn goods which accounted for 78.6% of the total exports, and the stable growth of the agricultural sector are two other reasons for the thriving economy.

16.1.9. Past Investment Record

① FDI from Japanese firms: 96.3 million US\$ in 2014, 45.4 million US\$ in 2015

(Source: Bangladesh Central Bank)

Number of Japanese companies in the country: 240 companies

(Including resident offices)

(Source on 16.1.1.–16.1.9.: “Bangladesh Report, JETRO”)

16.1.10. Past ODA Record from Japan

Table 16.1 Past ODA Record from 2010 to 2014

unit: 100 million Yen

FY	Yen Loan	Grant Aid	Technical Cooperation
2010	—	31.49	27.74 (24.11)
2011	599.69	11.35	37.77 (29.04)
2012	1,663.76	22.08	36.32 (28.39)
2013	—	40.86	50.09 (42.38)
2014	1,209.86	14.05	38.15
Total	10,666.35	4,777.73	794.66 (723.40)

(Source: Ministry of Foreign Affairs, Japan)

16.1.11. General Labor Situation in Bangladesh

(1) Labor situation

The population of Bangladesh is about 160 million. The labor force, a total of 56.7 million, is comprised of 39.5 million men and 17.2 million women. Of this workforce, about 20.9 million are young workers of age 15 to 29. Between age 15 and 25, they are about 13.2 million, comprised of 8.2 million men and 5 million women. The number of people working in the formal sector is 5.5 million for men and 1.3 million for women, or a total of 6.8 million (12.6%). The number of people working in the informal sector amounts to 47.3 million in total (87.4%), comprised of 32.4 million men and 14.9 million women.

The Bangladesh economy is largely dependent on the export of sewn goods (second only to China) and remittance from emigrants working overseas, which makes it structurally vulnerable. The national finance has been in chronic deficit, which they have covered with foreign aids and debts from domestic banks, etc. .

Currently, the total number of workers organized in labor unions is about 1.9 million (labor union organization rate: 4.44%). The total number of local unions is 5,242, of which 1,352, or 1.25 million members, join one or another of 32 national labor union federations, so-called national centers.

(2) Recent occupational accidents

In the ready-made garment (RMG) industry, at least 1,841 people have been killed in the past 12 years in the collapse, fire, etc. of their factories and other workplaces. The number of people injured reached 9,595, many of whom lost their labor ability, and many of the injured and families even have not received compensation. Two of the major tragic accidents in recent years are the collapse of Rana Plaza in 2013 and the fire at Tazreen Fashions in April the same year. Many workers were killed or injured.

(Source for 16.1.11: Website articles, Japan International Labor Foundation, partially revised)

16.2. Administrative Organizations on OSH

In Bangladesh, it is the Ministry of Labor and Employment (MLE) that is in charge of OSH administration. According to its website, the ministry's organization consists of:

- Directorate of Labor
- Department of Inspection for Factories and Establishments (DIFE)
- Labor Appellate Tribunal
- Minimum Wages Board
- National Skills Development Council
- Bangladesh Labor Welfare Foundation

Out of these organs, the Department of Inspection for Factories and Establishments (DIFE) is responsible for ensuring the welfare and OSH of workers in all industrial fields.

(1) Overview

According to the Bangladesh Country Report (DIFE, 2015), the mission of the DIFE is as follows:

- DIFE is responsible for ensuring welfare, safety and health of valuable human resources working in various sectors contributing national development.
- DIFE collaborates with various government and private organizations, agencies along with international organizations specially ILO to facilitate policy, planning, measures and directions adopted to enhance occupational safety and health for all workers by appropriate working conditions and environment.
- The Department of inspection for Factories and Establishments from a directorate into a department having a headquarters and 23 district offices with 993 manpower of which 679 new posts created in revenue budget.

(2) Objectives

- To implement Labor Laws and regulations
- To eliminate child labor
- To enhance productivity of factories by creating a better working environment better working environment
- To ensure workplace safety including fire safety and welfare of workers

(3) History

Bangladesh emerges as an independent and sovereign country in the world map through a glorious liberation war in 1971. Over the long span of 44 years of independence, a huge number of factories, shops and commercial establishments has flourished in the country. The importance of industry and trade is increasing day by day. Millions of workers are working in these sectors. The Department of inspection for Factories and Establishments has been carrying out the responsibilities by ensuring legal rights, safe and hygienic work place for the huge number of working people.

A report of Bangladesh Bureau of Statistics, 2001 states that the number of manufacturing units in Bangladesh at that time was 2,42,818 and the number of shops, hotels, construction companies and commercial health service centers was 20,15,117. It is very reasonably assumed that the number of workplace has increased manifold over these years than the statistics published in fourteen years ago.

The Department of inspection or Factories and Establishments was discharging its responsibilities by enforcing the law set out in the Bangladesh Labor Act 2006 in such huge number of factories and commercial establishments. The department has been playing a crucial role in ensuring compliance specially in garments factory. But the manpower, infra-structure and logistic support of DIFE was very poor compared to the total number of factories, shops and commercial establishments.

On 15.01.2014, the Ministry of Labor and Employment, after completing all formalities, issued the government order of upgrading the Department of Inspection for Factories and upgrading the Department of Inspection for Factories and Establishments from a directorate into a department having a headquarters and 23 district offices with 993 manpower of which 679 new posts created in revenue budget.

Table 16.2 Number of labor inspector posts after management system reform

	Number of LI Post During Directorate	Number of LI Post add after Department Created	Total Number of LI Post Sanction for Department	Number of LI Working at Present	Vacant LI Post at Present
1st Class LI	75	136	211	61+3	150-3
2nd Class LI	108	256	364	218+1	146-1
Total	183	392	575		

Note: LI Labor Inspector

(Source on 16.2: "Bangladesh Country Report, 2015")

16.3. Laws and Regulations on OSH

(1) Names, overviews, and nature of OSH-related laws, regulations, and ordinances and their equivalents

OSH-related laws and regulations in Bangladesh

- Labor Welfare Foundation Acts 2006
- Bangladesh Labor Law 2006
- Bangladesh Labor Welfare Foundation Rule 2010
- National Integrity Strategy
- Bangladesh Labor Welfare Foundation (Amendment) Rules, 2015
- Bangladesh Labor Rules 2015
- Bangladesh Labor Welfare Foundation (Amendment) Act 2013
- Bangladesh Labor Law(Amendment 2013)

(Source: Ministry of Labor and Employment HP)

(2) Background of the establishment of the Labor Act 2006

Trapped in a vicious cycle of labor cost cutting, Bangladesh has seen many occupational accidents in recent years. With a labor code left undeveloped, the country's labor environment had been regarded as a big problem since before the fast fashion industry grew in the first place. The number of deaths in labor accidents in the sewing industry from 2005 onwards is said to exceed 2,000. According to another survey, 500 people were killed by fires in garment factories between 1992 and 2012 alone. Every time an accident occurred, the government enacted separate, individual acts such as the 1961 Factory Act to deal with problems. The foundation of the current labor related laws, such as building standards, restrictions on working hours, standards for minimum wages, etc., we might say, had been laid to some extent by the early 2000s. However, with all those individual acts popping up here and there randomly, the whole picture of the legal system got more and more blurred and concerns grew about inconsistency between acts. In addition, some of those acts were definitely outdated. All these reasons urged lawmakers to fix the problems and put them together in one single code. On October 11, 2006, the Parliament enacted Bangladesh Labor Act (Act No. 42 of 2006)(Labor Act 2006), the first unified labor code for the country.

(3) Contents of Bangladesh Labor Act 2006

Integrating 25 individual acts then existing, the Labor Act 2006 was an advanced labor code that covered most of the internationally required provisions such as labor standards recommended by ILO. The Bangladesh Labor Act integrates all labor-related acts in one single code that might be left separate in other countries, such as the Three Major Labor Acts, Workers' Compensation Act, etc. in Japan.

Bangladesh Labor Act 2006 consists of 354 articles divided into 21 chapters:

- Chapter I Preliminary
- Chapter II Conditions of Service and Employment
- Chapter III Employment of Adolescent
- Chapter IV Maternity Benefit
- Chapter V Health and Hygiene

Chapter VI	Safety
Chapter VII	Special Provisions relating to Health, Hygiene and Safety
Chapter VIII	Welfare
Chapter IX	Working Hours and Leave
Chapter X	Wages and Payments
Chapter XI	Wages Board
Chapter XII	Workmen's Compensation for Injury by Accident
Chapter XIII	Trade Unions and Industrial Relations
Chapter XIV	Settlement of Disputes, Labor Court, Labor Appellate Tribunal, Legal Proceedings, etc.
Chapter XV	Workers' Participation in Companies Profits
Chapter XVI	Regulations of Employment and Safety of Dock Workers
Chapter XVII	Provident Funds
Chapter XVIII	Apprenticeship
Chapter XIX	Penalty and Procedure
Chapter XX	Administration, Inspection, etc.
Chapter XXI	Miscellaneous

Although, in terms of contents, the Labor Act 2006 followed those of former individual acts, some of its provisions modified them or added new ones to fix problems of the former acts, as it was desired as one of the lawmakers' motivations. For example, in the former individual acts, there was no explicit provision on the means of confirming official contracts, such as requirement for the employer to create a register of employees, which is now codified as Article 9 of the Labor Act 2006. In a similar way, learning from past accidents, the Labor Act 2006 has now such specific provisions as Article 19 that requires the employer to pay the bereaved family of a defunct worker a compensation and allowance equivalent to 30 days of his/her base wages; Article 26 (1) (a) that requires the employer to give the worker a prior notice of 120 days preceding his/her dismissal; and Article 123 providing for deadlines of wage payment, which, all in all, upgraded the country's labor act to the same level as international labor standards. Further, in addition to provisions directly related to labor issues, the Labor Act 2006 has now Chapter 5 on workers' health management in Chapter 6 on workers' safety. In particular, the provisions on safety are set forth in great detail and Article 62 requires the employer to install emergency stairs to protect workers against fires.

(Source for 16.3. (2)-(3): *Work environment of Bangladesh and its legal aspects*, Development Law 2014, Keio University)

(4) Amendment of the Labor Act in 2013

Since the enactment of the 2006 Act, the country saw several major occupational accidents happen, such as the one at Tazreen in November 2012 (112 workers killed in a factory fire) and the one at Rana Plaza in April 2013 (1,129 workers killed in a collapse of buildings), which triggered people's anger about long-hour work, factories violating safety standards, illegal buildings built without permits, etc. and made them serious social issues and led to significant amendments of relevant provisions in 2013.

The structure of the amended 2013 Labor Act is the same as that of the 2006 Act, but amendment was made to the provisions on extension of the compensation period for deceased workers and extension of the grace period upon the worker's departure.

Table 16.3 List of labor-related laws and regulations in Bangladesh

(Source: Website, ILO)

Occupational Safety & Health	Nuclear Power Plant Act, 2015 (No. 19 of 2015).
	Formalin Control Act, 2015.
	National Policy on HIV/AIDS and STD related issues, November 1996
	Nuclear Safety and Radiation Control Act, 1993 (Act No. 21 of 1993).
	Institute of Nuclear Agriculture Ordinance, 1984 (Ordinance No. II of 1984).
	The Workmen's Protection Act, 1934 (Bengal Act No. 6 of 1935).
	The Boiler Rules, 1928.
	Boilers Rules, 1928.
	Boilers Act, 1923 (No. 5).
General Provisions	Bangladesh Labor (Amendment) Act, 2013 (Act No. 30 of 2013).
	National Labor Policy 2012.
	Labor Act, 2006 (XLII of 2006).
Labor Administration	Control of Employment Rules, 1965.
	Control of Employment Ordinance, 1965 (No. 32 of 1965).
	The Industrial Labor Statistics Rules, 1961.
	Industrial Statistics Act, 1942 (No. 19 of 1942).

16.4. Development of the Bangladesh Labor Inspection System and its Challenges

(1) The Development of the Bangladesh Labor Inspection System and Current Challenges

In Bangladesh, due to the industrial structure largely dependent on the sewing industry (see 16.1.8), the main subjects of inspection are sewing/manufacturing factories, etc. In the Country Report by the DIFE, the current status and problems of the country's inspection system and the government's efforts to improve the system are summarized as follows.

The population of Bangladesh was 155.8 million in 2013 and is home to approximately 1,082 persons per square kilometer. This makes it one of the most densely-populated countries in the world. Despite many challenges and constraints, the Bangladesh economy was able to maintain a steady and respectable GDP growth rate of about 6 per cent over the past decades resulting in a significant reduction in poverty and improvements in per capita income.

This steady economic development including high export growth has contributed to the expansion and diversification of the domestic economy and rapid growth of the industrial sector. This includes the export-oriented industries, in particular the Ready Made Garment (RMG) sector. As a result, there has been a major shift in the sectoral composition in the economy. The agriculture sector's share in both employment and GDP has fallen steadily while that of manufacturing and services has increased. In 2000, agricultural sector employment accounted for almost half of employment (51.7 percent of the labor force) while in 2010 it decreased down to 47.6 percent. Within the non-agricultural sector, the service sector (trade, hotel and restaurants) accounted for the largest share of employment (35.4 percent) in 2010 followed by manufacturing industry (12.4 percent). This rapid expansion of industrial and service sectors has been accompanied by commensurate increase in the number of factories and establishments and the number of workers engaged by them. The task of ensuring safe workplaces and harmonious labor-management cooperation has therefore also grown by a corresponding factor and presents a considerable challenge to the regulatory authorities. (Source: The Labor Inspection System in Bangladesh, DIFE)

(2) Government Commitment and Actions to Improve the Labor Inspection System

The Government of Bangladesh, as per the provisions of the Labor Act 2006, is to maintain a labor inspection service to ensure compliance with the law. It has also committed to the provisions of the ILO conventions it has ratified, particularly Convention 81 on Labor Inspection as well as national level commitments expressed through the adoption of several National policies namely OSH Policy 2013, Labor Policy 2012, Child Labor Elimination Policy 2010, and National Plan of Action for Elimination of Child Labor (2012-16) .

(3) Conclusion of Labor Inspection System

The labor inspection system has gone through major changes and reforms during the post-Rana Plaza period in a process which is still ongoing. Most of these changes (since June 2013) have been confined to internal processes. DIFE has been upgraded. New inspectors have been recruited and trained. The

underlying capacity of DIFE has been strengthened through the development of an inspection strategy, road map, a job description of the inspectors and a draft inspection checklist. Equipment has been procured, transparency enhanced through a website and a worker helpline launched. ILO and other partners are supporting DIFE in these measures.

Although this support has been overwhelmingly focused on the RMG sector, the labor inspection system as a whole is benefitting. DIFE, with its elevated roles and responsibilities, is prepared to take up the challenge of building a modern and efficient labor inspection system which will be able to live up to expectations and implement the provisions of the Labor Act 2006 and its various amendments. More importantly, DIFE will be able to make workplaces safer and protect the welfare and interests of both the employers and the workers and by doing so help raise the productivity and competitiveness of industries. In the long run, this will contribute to country's overall development and its ambition to become a middle income country by 2021.

(Source on 16.4: The Labor Inspection System in Bangladesh, May 2013 – October 2015, DIFE)

16.5. Inspecting Activities (for Factories)

The ILO's Country Profile (2002) summarizes the purposes of inspection at factories as follows:

- a) Inspection of factories, shops, commercial establishment, tea plantations, ports, docks, railways, roads transport etc., under relevant labor laws for enforcement of the provisions relating to safety, health, labor welfare, payment, payment of wages, regulations of hours of work, conditions and terms of employment, social security etc. of workers.
- b) Prosecution against the violations of labor laws in different courts,
- c) Approval of construction and extension of factories.
- d) Approval of layout plans of factories.
- e) Issue of registrations and license of factories and realization of fees for the purpose
- f) Maintenance of liaison with different government departments, employers' organization and trade unions on enforcement of labor laws.
- g) Collection of the data for preparation of annual and other periodical reports under labor laws.
- h) Assistance to the government in formulation of policies about enforcement of labor laws and framing labor laws including amendment of various Acts and Rules
- i) Preparation of replies to the ILO questionnaire to ratification of IL conventions
- j) Assistance to other international agencies in preparing survey reports relating to labor inspection, wages, administration, productivity etc.
- k) Representing the government in national and international seminars, meetings, forums etc. on labor inspection, labor administration productivity etc.
- l) Approval of service rules of the workers as and when applied for by the management of different establishments.
- m) Examination and checking of the certificates issued by the competent authority relating to safe operations of gears, derricks, winches and other accessories of ports ensuring safety, and inspection of ships touching the port for enforcement of safety and welfare provisions of relevant laws.

During inspection, an Inspector usually perform following tasks:

- Advices the management concerned on the spot to rectify the defects/infringements observed
- Subsequently he issues a notice to the management with an advice to rectify the defects/infringement within the specified time
- During the follow up inspection if the action for defects/ infringement. if not taken, the inspector files a lawsuit in the competent court.

16.6. Education and Training Activities on OSH

The ILO's Country Profile (2002) summarizes the outline of education and training activities in the field of OSH as follows:

Industrial Relations Institute (IRI)

Industrial Relations Institute under the Department of Labor (under Ministry of Labor and Manpower) conducts courses encompassing labor laws and safety and health issues as embodied in the labor laws. These courses are conducted for middle level officers of industries, workers & trade unions through four IRIs (Dhaka, Chittagong, Khulna & Rajshahi).

Bangladesh Institute of Management (BIM)

Bangladesh Institute of Management, a semiautonomous organization under the Ministry of Industries conducts a diploma course in Personnel Management and Industrial Management and short courses on labor laws. Health and Safety provisions as embodied in the labor laws are covered in these training courses.

Occupational Health Unit of Directorate General of Health Services

The Occupational Health Unit of Directorate General of Health Services organizes and conducts training courses on occupational health and safety for workers in liaison with different industries.

Bangladesh Chemical Industries Corporation (BCIC)

Bangladesh Chemical Industries Corporation organizes training program on fire hazards, safety, safety devices and personal protective equipment for workers of industries under their management.

Bangladesh Garments Manufacturers and Exporters Association (BGMEA)

Bangladesh Garments Manufacturers and Exporters Association organizes and conducts training programs on health and safety for workers and managers of member garments factories with particular emphasis on fire safety.

Muktijodhya Kalyan Trust

Muktijodhya Kalyan Trust a body under the Ministry of Defense runs short course on safety, health and labor laws for officers and employees of enterprises/industries under their management.

National Institute of Preventive and Social Medicine (NIPSOM)

National Institute of Preventive and Social Medicine under the Ministry of Health and Family Welfare runs a regular Occupational and Environmental Health Masters course (MPH-OEH) for health personnel from both government and private sectors. Currently NIPSOM is conducting a series of formal 8-week training program on occupational health and safety course for managers, supervisors and personnel entrusted with workplace safety, and also physicians rendering services to industries.

Engineers Institute of Bangladesh

As a professional institute of engineers, the EIB since 1995 conducts regular 'Safety Management' training course for its members who are employed in different public and private organizations. 10 (ten) such courses has been conducted so far

Centre for Development Services (CDS)

Centre for Development Services a NGO has conducted activities related to health, family planning, and child labor among industrial workers. Recently they have undertaken awareness building activities related to occupational health and workplace safety.

Bangladesh Institute of Labor Studies (BILS)

BILS is an NGO working on OSH since 1997. In addition to other labor related activities they undertake, OSH related training for workers and employers.

Training programs by International agencies and international cooperation projects

The international organizations and cooperation projects like WHO, JICA, ILO, USDOL etc. provides funds to local institute and organizations for training programs on OSH but not regularly. They also occasionally provide funds for foreign training.

16.7. Proposals for the Enhancement of OSH Policies by the ILO (as of 2002)

To improve the quality of activities in the field of OSH in Bangladesh, ILO made the following proposals in 2002 for each area of activity:

(1) National policy

- OHS management should be encouraged.
- Rapid reassessment and re-addressing of legislations.
- Steps in ratifying OSH related ILO conventions.
- Frame National Occupational Safety & Health Policy.

(2) Governmental Organizations

Short term (1-5 years)

- Establish autonomous OSH institute for services.
- Establish National Occupational Safety & Health Council.

Mid term (5-10 years)

- Expand OSH programs to all occupations
- Unify OSH related organizations

(3) Employers Organization

- Training, awareness and motivation of employers regarding work place safety and health
- Develop the employer's association as prominent agencies in training and disseminating information.

(4) Labor Union & Organization

- Training, awareness and motivation of workers regarding safety and health in their workplace
- Encourage more bipartite approach.
- Develop the union association as prominent agencies in training and disseminating information.
- Expand union activities to all occupational sectors including EPZs.

(5) Legislation

- Update the laws and reduce inconsistencies.
- Broaden coverage of OSH to cover all occupations.
- Increase effectiveness of the laws focusing on small and medium sized enterprises (SMEs).
- Formulate and promulgate OSH act.
- Incorporate workplace environment standards, biological monitoring and formative medical examination scheme.
- Incorporation of the provisions in the legislations for safety committees and safety officers.
- Encourage employment of occupational health specialists in industries.
- Introduce Safety Audit.

(6) Training Organizations

- Develop and strengthen institutional capacity to provide education and training related to OSH.
- Produce qualified OSH personnel- Occupational physicians, Occupational nurse, and Industrial hygienist, Safety Officers etc.

(7) National Statistics

- Develop active data collection system.
- Establish occupational disease surveillance.
- Establish national and regional accident and occupational disease database.

(8) Inspectorate

- Increase number of inspectors.
- Organize formal training program for all categories of inspectors for proper enforcement of laws.
- Increase frequency of inspections and ensure proper inspection, monitoring and vigilance in workplaces.
- Expand inspections to all occupations and enterprises.
- Arrange training in abroad to develop up to date knowledge and skills.

(9) For SMEs

- Disseminate more OSH information and training.
- Reduce OSH equipment taxation.
- Introduce SME support fund.
- Introduce interim incentives for adopting and implementing OSH programs.

(Source on 16.5-16.7: “Occupational Safety and Health in Bangladesh 2002, Country Profile, ILO”)

17. STUDY TOUR

17. Study Tour in JAPAN

17.1. Objective of the Study Tour

In this project, we organized a Japan Study Tour (the invitation of host governments' delegations to Japan) from January 15 to 22, 2017 to help the delegates witness some of Japan's OSH initiatives first-hand, visit institutions/facilities relevant to OSH, and exchange information and opinions with Japanese experts. The tour members consisted of government officials of the host countries, mainly from the Ministry of Manpower of Indonesia and the Ministry of Human Resources of Malaysia.

Initially, we had planned the number of the tour members at about 15 (about 10 from Indonesia and 5 from Malaysia), but, after the Malaysian Government expressed its wish to increase its members to 10, too, the total members of the tour ended up at 20.

The joint venture has played the following roles in inviting the missions to Japan.

- Support of selection for invitees
- Support of introduction on the Study Tour for C/P personnel during the 1st visit to Indonesia & Malaysia
- Preparation of Curriculum
- Preparation of presentation materials in English
- Operation of the Invitation Program

* In this project, the joint venture did not take in charge such contingent business tasks as arrangement for air tickets, travels and accommodations within the country, attendance on them including guide and interpret services, picking them up and seeing them off at airports, etc.

17.2. Drafting a Plan of the Tour, Introduction to the Indonesian/Malaysian Government etc.

In order to explain the invitation plan to officials of the Indonesian and Malaysian Government during the first field survey, we drafted a (draft) plan prior to the survey (leaving Japan on November 7) and obtained the consent of the orderer. As for the final plan of the study tour, we decided to wait for our presentation to the Governments of Indonesia and Malaysia to select the final subjects of lecture, places to visit, etc., considering their wishes and comments (see Table 17.1. for the final plan of the study tour).

The initial plan was to leave the selection of the tour members to the mutual consultation between JICA and relevant officials of the Department of Labor (“DoL”)(Indonesia) and the Ministry of Human Resources Development (“MHRD”)(Malaysia) but, considering the roles and decision-making process, etc., of these agencies, the joint venture took an active role by giving advice on proposals made by relevant sections of these agencies and related organizations on the selection of members.

As stated earlier, the MHRD requested to accept five more members (Note 1), JICA examined the request, and finally accepted it to increase the Malaysian members to ten, too. Prior to the tour, JICA gave the relevant officials a brief on the study tour, the joint venture presented a proposed curriculum, schedule and itinerary of the tour, listened to comments and wishes of the counterparts and reflected them to the final plan of the study tour.

Table 17.1 Curriculum on Invitation Program (from January 15th to 22nd, 2017)

Date	Day	Invitation Program							Stay in	
		AM	Speaker	Interp.	Lunch	PM	Speaker	Interp.		
1/15	Sun.					Arrival at Tokyo			Tokyo	
1/16	Mon.	10:00 - 11:00 [Briefing] Presenter: Mr. Yamaguchi, JICA & Mr. Ito, JICA Study Team -Introduction on the objective of JICA's Basic Information Collection Study & JICA's past contributions on OSH for overseas etc. (by JICA) -Introduction on the Study Tour (by Study Team)	by JICA & JICA Study Team	○	Welcome Luncheon Party at JICA TOKYO	14:00 - 16:00 [Introduction. I] Presenter: Mr. Uematsu, Labour Standards Bureau, Ministry of Health, Labor and Welfare -Introduction on historical background of Japanese OSH policy development & Legislative framework -Introduction on Labor Inspector System, role & practical situation on sites	by MHLW	○	Hotel New Otani	
		Place/Venue : JICA Tokyo (Hatagaya) Seminar Room 404			Place/Venue : JICA Tokyo (Hatagaya) Seminar Room 404					
1/17	Tue.	[Meeting Room: 210]Coordinator: Mr. Yamaguchi, JICA 10:00 - 11:00: Consulting with Indonesian invitees by JICA 11:00 - 12:00: Consulting with Malaysian invitees by JICA	by JICA	-	Restaurant: SULTAN in IIDABASHI	13:30 - 15:00 [Introduction. III] Presenter: Mr. Kawashima, Japan Industrial Safety and Health Association (JISHA) -Roles of JISHA, about OSHMS, education/seminar/training program etc. (including Q&A) 15:15 - 16:30 [Introduction. IV] Presenter: Mr. Fujioka, Japan Construction Occupational Safety and Health Association (JCOSHA) -Roles of JCOSHA, about COHSMS, Safety Construction Cycle etc. (including Q&A)	by JISHA & JCOSHA	○	Hotel New Otani	
		[Meeting Room: 110] Presenter: Mr. Takemoto, Inspection Division, Labor Standard Bureau, MHLW [Introduction. II] 10:00 - 11:00: Introduction on Japanese inspection system for Malaysian invitees 11:00 - 12:00: Introduction on Japanese inspection system for Indonesian invitees	by Study Team	○		Place/Venue : JICA HQ (Kojimachi) : ※At 11:00, each group exchanges the room				Place/Venue : KOUSAI KAIKANN (Kojimachi)
1/18	Wed.	Visit National Institute of Occupational Safeth and Health, Japan in Kiyose City. 10:00 - 12:00 [Introduction. V] Presenter: Mr. Umezaki, President of JNIOOSH and others -Greetings, Introduction of JNIOOSH, Kiyose -Introduction on the activities of JNIOOSH and analysis of industrial accidents -Outlines of research in each group -Facilities tour for research buildings for Construction Safety, Machine Safety, Chemical Safety.	by JNIOOSH, Kiyose	○○	at JNIOOSH (Lunch box for Halal Cuisine)	Visit Tokyo Safety & Health Education Center, JISHA 14:00 - 16:00 [Introduction. VI] Presenter: Mr. Shirakawa, President of JISHA Tokyo Center and Mr. Tomozawa -Greetings, introductions of the center, outline of the activities with facility tour. The facility is next to JNIOOSH in KIOYSE City.	by JISHA	○○	Hotel New Otani	
		National Institute of Occupational Safeth and Health, Japan (JNIOOSH) in Kiyose City, Tokyo.				Place/Venue : Tokyo Safety & Health Education Center, JISHA				
1/19	Thu.	Introduction on Safety Management System by OBAYASHI Corp. 09:30 - 11:30 [Introduction. VII] Presenter: Mr. Kawauchi, Deputy Director, Overseas Dept., Obayashi Corporation -Introduction of Safety Management System by Obayashi Corporation, practical activities on sites.	by Obayashi Corp.	○○	Restaurant:Top of Shinagawa Prince Court, SHINAGAWA PRINCE HOTEL	Visit Metropolitan Expressway Route No.1 HANEDA Line Rehabilitation Project 14:00 - 16:00 [Introduction. VIII] Presenter: Mr. Fujimura, Site Representative of Route 1 Haneda Line Renewal Project, Obayashi Corporation -Safety Management on construction site	by Obayashi Corp.	○○	Hotel New Otani	
		Venue : Shinagawa Intercity Hall & Conference (Shinagawa) next to Obayashi Corp. HQ				Place/Venue : Metropolitan Expressway Route No.1 HANEDA Line				
1/20	Fri.	Visit National Institute of Occupational Safeth and Health, Japan in Noborito, Kanagawa Pref. 10:00 - 12:00 [Introduction. IX] Presenter: Mr. Koda, Deputy Director General, JNIOOSH and others -Greetings, Introduction of JNIOOSH, Noborito -Introduction on the activities of JNIOOSH -Outlines of research in each group After 12:00, transfer to Shin-Yokohama Station	by JNIOOSH, Noborito	○○	Lunch box for Halal Cuisine in Shinkansen	Shin-Yokohama Station ⇒ Kyoto Station by Shinkansen (2hrs.) Kyoto Station ⇒ Hirakata City by Bus (50min.) Visit Komatsu Osaka Factory 16:30 - 17:30 [Introduction. X] Presenter: Mr Furukawa, Director of General Affairs Department, KOMATSU Osaka Factory and others -Look around safety and sanitary control in the factory	by KOMATSU	○	The Westin Miyako Kyoto	
		National Institute of Occupational Safeth and Health, Japan in Noborito, Kanagawa Pref.				Place/Venue : Komatsu Osaka Factory (Hirakata City, Osaka)				
1/21	Sat.	Visit cultural sites & facilities in Kyoto		-	○	Visit cultural sites & facilities in Kyoto		-	○	Same as 20th
1/22	Sun.	Departure from Kansai Intl. Airport								

Table 17.2 List of Invitees

Indonesia			Malaysia		
No	Participants	Organization	No	Participants	Organization
1	Mr. Ghazmahadi	Head of Sub-division Building Construction, MoM	1	Ir. Mohtar bin Musri	Director General, DOSH, MoHR
2	Mr. M. Idham	Head of Sub-div. OSH Assessment & Standardization,	2	Mr. Zahrim bin Osman	Executive Director, NIOSH
3	Mr. Iyus Hidayat	Head of OSH Office West Java Province, MoM	3	Ir. Omar bin Mat Piah	Deputy Director General, DOSH, MoHR
4	Mr. Daafi Armanda	Head of Section Building Const. Norm Inspection, MoM	4	Mr. Mohd Anuar bin Embi	Director of Policy, Intl. & RD Division, DOSH, MoHR
5	Ms. Lena Kurniawati	Head of Section Electricity & Fire Prevention Norm Inspection	5	Ir. Dr. Majahar bin Abdul Rahman	Director of Chemical Management Div., DOSH
6	Mr. Gumilang A. Yani	Labor Inspector, MoM	6	Ir. Ibrahim bin Md Dol	Director of Industrial Safety Division, DOSH, MoHR
7	Mr. Zuhri Ferdelli	Labor Inspector, MoM	7	Ir. Zailee bin Dollah	Director of DOSH W.P. Kuala Lumpur, DOSH, MoHR
8	Mr. Subhan	Labor Inspector, MoM	8	Ir. Mohd Hatta bin Zakaria	Director of DOSH Sarawak, DOSH, MoHR
9	Ms. Fitriana Bani	Labor Inspector, MoM	9	Mr. Mohd Redzuan Shah bin Masri	Executive, Construction Safety Unit, NIOSH
10	Mr. Wahzani Setyawan	Labor Inspector, MoM	10	Mr. Harun bin Bakar	Manager Accident Prevention Section, SOCSO

MoM: Ministry of Manpower MoHR: Ministry of Human Resources

17.3. Planning and Coordination of Lectures, Field Visits etc.

(1) Selection of lectures to listen to, facilities and sites to visit, etc.

In planning the curriculum of this study tour, we tried to best address the reason why we invite government officials in Indonesia and Malaysia in charge of occupational safety and health (OSH) field to Japan, while taking into account the background of and circumstances leading to this study project and to listen to the counterparties' comments and wishes and reflect them to the final tour to the extent possible. Specifically, the points we focused on in planning the curriculum were as follows.

[Points we focused on in planning curriculum]

- (i) Make the curriculum one that best help the tour members understand Japan's past experiences in the OSH administration in a comprehensive manner;
- (ii) Give comprehensive explanation on Japanese labor standards inspector system, followed by presentation of specific examples during field visits;

⇒ Strong wishes from both governments
- (iii) Present the activities of OSH-related organizations (under the Ministry of Health, Labor, and Welfare ("MHLW")), current subjects of their studies, tasks ahead, etc.;
- (iv) Make the content of the curriculum the one that best helps the tour members understand how Japanese OSH training and educational systems work;
- (v) Make the content of the curriculum the one that allows the tour members to witness first-hand

daily OSH activities at workplaces;

Regarding the point (i), we requested the Labor Standards Bureau (LSB) of the MHLW to give an overview presentation on the background of the OSH administration in Japan, the history of legal framework development, the purpose of designing the labor standards inspection system, etc. so that the members have a comprehensive understanding of how, since the period of high economic growth, Japan faced many occupational accidents, and established the Occupational Safety and Health Act (“OSHA”) in 1972 and various other measures in the following years.

To help members understand the point (ii), i.e. how the Japanese labor standards inspection system actuality works based on the general understanding given in (i), we requested the LSB, MHLW, to send an actual labor standards inspector to give them a lecture on the details of the labor standards inspection system, how inspectors actually conduct inspection at workplaces, etc.

Regarding the point (iii), to give a glance at the activities of various organizations working to help the MHLW and other ministries deploy OSH measures, we asked two organizations to give lectures: one was the Japan Industrial Safety and Health Association (JISHA), which offers a high level of expertise with many specialists on various fields of OSH and deploy professional OSH activities; and the other was the Japan Construction Safety and Health Association (JCOSHA), which is engaged in OSH activities in the construction industry. Furthermore, as a research institution conducting advanced researches on domestic OSH issues, we requested the National Institute of Occupational Safety and Health (NIOSH) (located in Kiyose, Tokyo, for safety divisions and in Noborito, Kanagawa, for health divisions) to give a presentation of what they are currently studying and what are issues ahead.

Regarding the point (iv), we requested the Tokyo Safety and Health Education Center (“TSHC”) of the JISHA, which provides year-round professional training courses to develop OSH leaders for business operators, to give a presentation on its activities.

Regarding the point (v), this invitation project was not for specific industries, but, as an example of efforts being made for OSH management in Japan, we chose construction sites, where many occupational accidents occur both in Japan and in the two countries, and requested Obayashi Corporation, one of the major construction companies of the country, to accept our visit to its offices to see how the company’s internal OSH policy is implemented and its system is working and further, to show the members how OSH management is being ensured on an actual construction site, to one of its construction sites, i.e. replacing an elevated bridge over the No. 1 Haneda Line of the Metropolitan Expressway. Furthermore, we requested Komatsu, Ltd. to accept our visit to its Osaka factory so the members can see first-hand how OSH is being ensured in the factory.

(2) Procedures for requests for lectures, presentations, and acceptance of visits

In each request made for a lecture, presentation, or acceptance of visit shown in (1) and Table 17.1

below, we explained the purpose of this survey and the invitation project, the identity of the tour members, how the one-week curriculum was designed, what role each lecture, presentation, or visit would play in the curriculum, and what kind of focus we wanted them to give in their presentation, etc. The above request for lecture, presentation, acceptance of visit, etc. was made formally in writing as prescribed by the hosts during preliminary adjustments and, as regards various handouts given at the time of presentation, by checking the scope of usage of individual works one by one with the providers. To help the tour members visit sites, exchange Q&As, exchange opinions, etc. smoothly, we accompanied the tour along the itinerary and made necessary adjustments.

17.4. Preparation of Presentation Material -Translation Support-

Study Team have dealt with translation of presentation materials based on presenter's request. Materials handled by the team are shown in Table 17.3.

Table 17.3 List of Lectures in which presentation materials have been translated by the Study Team

Date of Presentation	Lecturer	Title of Material	Contents	Number of pages translated
January 17 th , Monday	MHLW	What Are Labor Standard Inspector's Tasks?	Introduction of inspector's tasks in Japan	25 pages
	Japan Construction Occupational Safety and Health Association	Activities of JCOSHA	Introduction on activities by Japan Construction Occupational Safety and Health Association	17 pages
		COHSMS Guidelines	Outline of COHSMS Guideline	6 pages
January 19 th , Thursday	Obayashi Corp.	Safety Management of Construction Site	Introduction of site safety management policy by Obayashi Corp	63 pages
		Training on Safety Management in the field of Civil Engineering	Obayashi's corporate training program on civil engineering	44 pages
		Outline of Route 1 Haneda Line Renewal Project	Introduction of Route 1 Haneda Line Renewal Project	17 pages
		Route 1 Haneda Line the Renewal Project	Introduction of project background, objective etc.	11 pages

17.5. Study Tour

As for such services as translation, arrangement for travels and accommodations within the country, picking up the tour members and seeing them off at airports, attendance along the tour, etc., they were handled by the guides (coordinators) hired by the orderer (JICA).

Record of Program (1)

Briefing

Place: TIC, Seminar Room 404, JICA

Date & Time: Monday, January 16, 2017
10:00 to 11:30

Coordinator: Mr. Yamaguchi, JICA, Mr. Ito,
IDI-JAPAN

Presentation i): “JICA's Engagement toward OSH”
by Mr. Yamaguchi, JICA

Outline of Introduction: JICA's involvement and bilateral cooperation on OSH in the past, introduction of technical cooperation project being formulated at present etc.



***JICA Invitation Program
on
Occupational Safety and Health***

- Daily Program -

January 15 to 22, 2017

Japan International Cooperation Agency



Presentation ii): “JICA's Invitation Program on OSH” by Mr. Ito, IDI-JAPAN

Outline of Introduction: Introduction of invitation program, schedule and organizations & facilities to visit etc. from January 16th to 20th.

Record of Program (2)

Lecture on historical background & development of OSH policies and its present situation in Japan

Place: TIC, Seminar Room 404, JICA
Date & Time: Monday, January 16, 2017 14:00 to 16:00
Presenter: Mr. Uematsu, Expert Officer for Industrial Safety, Labor Standards Bureau, MHLW
Presentation i): “Current Situation and Policy in the area of OSH in JAPAN”
Outline of Introduction: Present situation of occupational accidents and diseases in Japan, MHLW’s organizational structure, outline of OSH policies having executed by MHLW, including past records of OSH accidents, specific policies implemented by MHLW after 1960’s, etc.



Record of Program (3)

Introduction of Labor Inspection System in Japan

Place: Meeting Room 110, JICA Headquarters
Date & Time: Tuesday, January 17, 2017 10:00 to 12:00
Presenter: Mr. Takemoto, Inspection Division, Labor Standards Bureau, MHLW
Presentation: “What Are Labor Standard Inspector’s Tasks?”
Outline of Introduction: Introduction of Labor Standards Bureau, operation system of labor standard administration, main tasks of labor inspectors, procedure of site inspection, contents of claims & consultations submitted to local labor inspection offices and its handling, present situation of supervisory services, prioritized policies at present and overall training curriculum of inspectors, etc.

Training Material
Confidential

What Are Labor Standard Inspectors' Tasks?

(JICA projects for information collection and research survey in the industrial safety and health management field)

January 17, 2017
Inspection Division, Labor Standard Bureau,
Ministry of Health, Labour, and Welfare (MHLW)



Record of Program (4)

Introduction of Activities by OSH Related Organizations

Place: KOUSAI KAIKANN

Date & Time: Tuesday, January 17, 2017 13:30 to 16:40

Presenters: Mr. Kawashima, JISHA & Mr. Fujioka, JCOSHA

Presentation i): "Explanation about JISHA" by Mr. Kawashima, JISHA

Outline of Introduction: Background & purpose on establishment of JISHA, organization outline, activities, about OHSMS, education & training programs offered by JISHA through the year.

Explanation about JISHA

- Outline of JISHA
- Zero Accident Campaign
- OSHMS
- Risk Assessment

1



Presentation ii): “Activities of JCOSHA” by Mr. Fujioka, JCOSHA

Outline of Introduction: Background & purpose of establishment of JCOSHA, organization outline, activities, about OHSMS, promotion activities of COHSMS, research topics, safety construction cycle etc.

Activities of JCOSHA

- What is JCOSHA?
- What is COHSMS?
- What is Safety Work Cycle?
(Safe Construction Management System)

Japan Construction Occupational Safety and Health Association (JCOSHA)



Record of Program (5)

Introduction of Research Contents by JNIOOSH - Kiyose Facility-

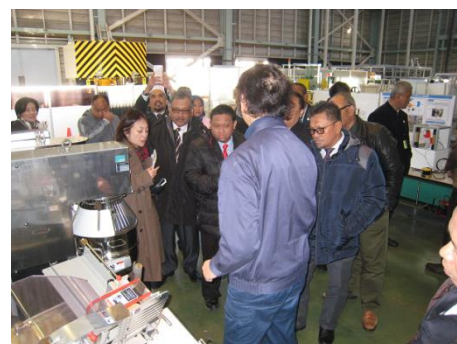
Place: Kiyose Facility, National Institute of Occupational Safety and Health, Japan

Date & Time: Wednesday, January 18, 2017 10:00 to 12:00

Presenter: Mr. Umezaki, President of JNIOOSH and other staff

Presentation: “Activities & Research of JNIOOSH Kiyose Facility” etc.

Outline of Introduction: Background & purpose of establishment of JNIOOSH, organization outline (annual budget, staff number, research contents etc.), specific research contents on construction safety, machinery safety, chemical safety and electrical safety.



Record of Program (6)

Introduction of OSH Related Education & Training Activities Offered by JISHA Tokyo Center

Place: Tokyo Safety & Health Education Center, Japan Industrial Safety and Health Association

Date & Time: Wednesday, January 18, 2017 14:00 to 16:00

Presenter: Mr. Shirakawa, President of JISHA Tokyo Center & Mr. Tomozawa

Presentation: "Tokyo Safety and Health Education Center -An Overview-" etc.

Outline of Introduction: Background & purpose of establishment of JISHA Tokyo Center, organization outline, annual curriculum of OSH related lectures and its contents et



Record of Program (7)

Introduction of Safety Management System by Construction Firm

Place: Conference Room 4, Shinagawa Inter City Hall

Date & Time: Thursday, January 19, 2017 09:30 to 11:40

Presenter: Mr. Kawauchi, Deputy Director, Overseas Department, Obayashi Corporation

Presentation: "Safety Management of Construction Site"

Outline of Introduction: Safety-oriented culture, historical background of occupational accidents in Japan, occupational safety and health management system in Obayashi Corp., practice of safety management on sites and corporate education & training.



Record of Program (8)

Introduction of Safety Management Activities on Construction Site

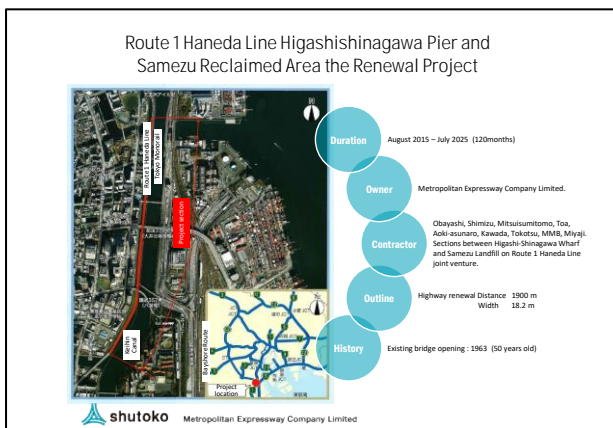
Place: Haneda Line Higashishinagawa Pier and Samezu Reclaimed Area the Renewal Project Site

Date & Time: Thursday, January 19, 2017 14:00 to 16:20

Presenter: Mr. Fujimira, Site Representative of Route 1 Haneda Line Renewal Project, Obayashi Corporation

Presentation: "Project Outline & Safety Management on Construction Site"

Outline of Introduction: The overview of construction work (budget, process, JV system, size of workforce, etc.) to replace a bridge for the rehabilitation of a section of the elevated bridge between the Higashi Shinagawa Pier and Samezu Landfill of the Metropolitan Expressway, No. 1 Haneda Line; daily work procedures; safety management activities; safety management rules on the site; system to provide hazard information to workers with signs, sensors, etc.



Record of Program (9)

Introduction of Research Contents by JNIOOSH - Noborito Facility-

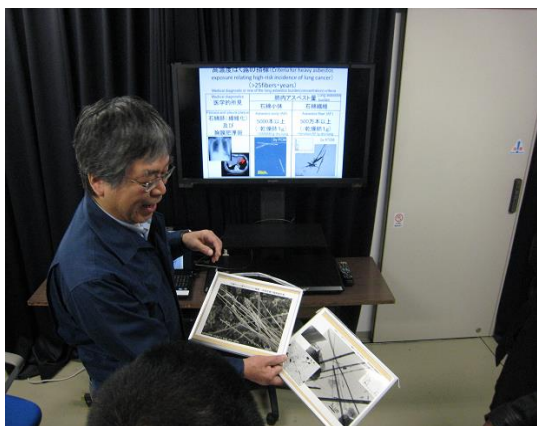
Place: Noborito Facility, National Institute of Occupational Safety and Health, Japan

Date & Time: Friday, January 20, 2017 09:45 to 12:00

Presenter: Mr. Koda, Deputy Director General, JNIOOSH and other staff

Presentation: "Activities & Research of JNIOOSH Noborito Facility" etc.

Outline of Introduction: Outline of Noborito facility (annual budget, staff number, research contents etc.), specific research contents on the effects on human body by industrial dust, low frequency, vibration and air ventilation etc.



Record of Program (10)

Introduction of OSH Activities in the Factory for Construction Machinery

Place: Komatsu OSAKA Factory, Hirakata City, OSAKA

Date & Time: Friday, January 20, 2017 16:20 to 17:45

Coordinator & Presenter: Mr. Takata, General Manager, KOMATSU Strategic Research Center
Mr. Furukawa, Director of General Affairs Department, OSAKA Factory and other staff

Presentation: “Outline of KOMATSU OSAKA Factory” & “SAFETY ACTIVITIES IN OSAKA PLANT” etc.

Outline of Introduction: Outline of KOMATSU OSAKA Factory, case examples of safety management activities such as;

- Execution of pointing & calling confirmation
- Coping strategy of underlying risk factors
- Periodical communication/safety meeting
- Corporate education and training system
- Specific measures that urge to keep good OSH condition in the factory (awards system, presentation/competition, zero-disaster campaign)
- activities for improving and maintaining working environment
etc.



17.6. Sharing of Proprietary Information with the Invitees

Regarding the handouts distributed at the time of lectures, presentations, visits to facilities and sites, especially those on electronic media, we found that some of them were not available for public disclosure because they contained information on studies still under way, because of copyrights, etc. Therefore, we checked the level of availability of individual documents one by one with the providers based on such classification as “distributed materials only available,” “distributed materials plus electronic media available,” etc. and provided them to the members accordingly. For material provision, we used an online storage service JICA GIGAPOD (accessible for a limited period).

18. LOCAL WORKSHOP

18. Local Workshop in Jakarta

18.1. Objectives of the Local Workshop

Objectives of the local workshop is to explain the draft final report (draft) prepared by the study team to the local government and to obtain opinions from related parties for formulating new technical cooperation project in Indonesia. In addition, we planned a program which the members of the Ministry of Manpower that participated in the invitation program introduce Japanese occupational health and safety initiatives so that participants in the workshop can deeply understanding of Japan's efforts and the content of the survey.

18.2. Outline of the Workshop

The outline of the workshop is shown below. JICA Study team had invited expected participants in related organizations for the workshop in advance through the Ministry of Manpower.

(1) Outline of the workshop

Items	Contents
OBJECTIVE	To have an opportunity to brief the Draft Final Report for this study and to share the information to formulate New Technical Assistance program
D A T E	9th February 2017
V E N U E	Conference room in POMELOTEL (HOTEL) Residential Address: Jalan Dukuh Patra Raya No.28, Kuningan, RT.11/RW.1, Menteng Dalam, Jakarta Selatan, Kota Jakarta Selatan, Daerah Khusus Ibukota Jakarta 12870
S E A T S	Limited to 50 participants
Target participants	Ministry of Manpower (OSH Division, relevant Divisions, Pusat K3 (HIPERKES)), BAPPENAS , Department of Public Works , and The construction industry representatives etc.

(2) Number of participants on the workshop

A total of 54 participants on the workshop (excluding participants from Japanese side). The breakdown of the participants was as follows:

Ministry of Manpower: 42, Ministry of Public Works: 1, Private training institution: 2, University officials: 2, Private enterprises: 2, Contractor (Construction): 3, NGO: 2.



18.3. Content of the Workshop

(1) Workshop Agenda

The agenda of the workshop is shown below.

WORK SHOP for JICA’s “Basic Information and Data Collection Study on Occupational Safety and Health for Asian Countries

WORK SHOP AGENDA

No	Time	TOPIC	Remarks
1	8:30-9:00	Registration	
2	9:00-9:10	Opening Remarks	JICA Indonesia Office
3	9:10-9:20 (10min)	Guidance Introduction of this study and workshop	JICA Study team
4	9:20-10:30 (70min)	Work Shop - 1 Report the BEST PRACTICES of OSH field of Japan through a study tour in Japan, (Q & A :10 min)	Ministry of Manpower
5	10:30-10:50	Coffee Break	
6	10:50-11:20 (30min)	Work Shop - 2 Report of summary of Draft Final Report for the study (Q & A :10 min)	JICA Study team
7	11:20-11:50 (30min)	Work Shop - 3 The latest effort of Ministry of Manpower regarding OSH	Ministry of Manpower
8	11:50-12:10 (20min)	Q & A , Discussion	JICA study team
9	12:10-12:15	Closing Remarks	Ministry of Manpower
10	12:15-13:30	Luncheon Discussion	

JICA Study Team Members; for Workshop

1. Toshiaki SHISHIDO IDI : Infrastructure Development Institute -Japan
2. Yoshiyuki TASHIRO Chodai Co., Ltd.
3. Fujio ITO IDI : Infrastructure Development Institute -Japan

(2) Content of presentation

Presentation outline of each program is shown below.

Work Shop - 1

Report the BEST PRACTICES of OSH field of Japan through a study tour in Japan

 <p>Ms. Lena Kurniawati :Ministry of Manpower</p>	 <p>SISTEM MANAJEMEN KESELAMATAN DAN KESEHATAN BIDANG KONSTRUKSI</p> <ul style="list-style-type: none">o JCOSHAo JISHAo Kementerian Kesehatan, Tenaga kerja dan Kesejahteraan Jepang
 <p>Mr. Subhan :Ministry of Manpower</p>	 <p>GAMBARAN PENGAWASAN KETENAGAKERJAAN DAN K3 DI JEPANG</p> <p>Ponelolet, 3 Februari 2017</p>
 <p>Mr. Iyus Hidayat :Ministry of Manpower</p>	 <p>ACTIVITIES AND EFFORT of Safety Management System on Site through construction site Tour</p> <p>Oleh: Drs. M. Idris, MKKK Zuhri Firdaus Study Visit Team Disampaikan pada: Rapat hasil Study Visit for The Safety Management Jakarta, 31 Januari 2017</p>
 <p>Mr. Gumilang A. Yani :Ministry of Manpower</p>	 <p>ANALISA KECELAKAAN KERJA</p>

Work Shop - 2 : Report of summary of Draft Final Report for the study

	
<p>Mr. ShiShido Toshiaki : Study team</p>	

Work Shop - 3 : The latest effort of Ministry of Manpower regarding OSH

	<p>Lecture (No material)</p>
<p>Mr. Ghazmahadi : Ministry of Manpower</p>	

18.4. Summary of the Results

All programs of the workshop had ended on schedule and active discussion and opinions were presented from the participants in the question and answer time. The outline is as follows.

- Questions and opinions on statistical methods of occupational accidents in Japan and Indonesia
- Questions and opinions on reducing accidents at construction sites
- Question on safety measures budget at the bidding in construction field in Japan
- Opinions regarding preparation of manual and monitoring method of OSH at the construction site
- Opinions on facilities and training contents at Occupational Safety and Health Center in Indonesia