ASEAN–OSHNET

GOOD OCCUPATIONAL SAFETY AND HEALTH PRACTICES 2008/2009

Edited by
Tan Fang Qun / Tsuyoshi Kawakami

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Tan Fang Qun and Tsuyoshi Kawakami

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Preface

In recent years, the Association of Southeast Asian Nations (ASEAN) has made rapid progress in raising the occupational safety and health (OSH) standards within the region. The efforts of the ASEAN-OSH Network (OSHNET), the platform to drive collaboration among regional OSH centres and agencies, have been important.

The ASEAN-OSHNET functions to help member countries achieve better OSH performance. OSHNET initiatives reflect its six programme areas for the region – information exchange, OSH training programmes, OSH standards, research on OSH good practices, improved OSH inspection capabilities and the development of national OSH frameworks. Under the ASEAN-OSHNET Plan of Action, adopted in 2007, all member countries target to develop a national OSH profile and implement national OSH strategies or programmes by 2012.

Through the OSHNET initiatives, ASEAN member countries have implemented innovative OSH practices. Many of those practices have yielded significant improvements in OSH. Notably, accident rates have decreased across the region, and the productivity of workers has increased.

This publication is a compilation of the many good OSH practices developed in recent years (national OSH frameworks, enforcement, outreach, training and research). These models were first presented during the ASEAN-OSHNET Workshop on Good OSH Practices in Singapore (February 2009). The International Labour Organization, through the ILO/Japan Multibilateral Programme, provided technical and financial assistance to the workshop and to this publication. This document covers practices relevant to the six ASEAN-OSHNET programme areas and also contains two research papers by eminent OSH experts on the development, promotion and implementation of good practices.

It is important that we continue to inspire further development and the use of good OSH practices. This publication will help in achieving that goal by encouraging the adoption of these practices throughout the region and enabling us to better meet the targets of the ASEAN-OSHNET Plan of Action.

Khamkhane Phinsavanh
Executive Director
ASEAN-OSHNET Secretariat
Director General
Department of Labour Management
Ministry of Labour and Social Welfare
Lao People's Democratic Republic

Message from the International Labour Organization (ILO)

Good-practice approaches have been playing a greater role in implementing the raising of occupational safety and health (OSH) standards at both the national policy and workplace levels. Adopting successful approaches strengthens the efforts of government, workers and employers. Within the region, each country has the potential to learn from one another and further promote high standards in OSH.

Recognizing how countries within the region can benefit from each other's experiences, the Singapore Government designed and hosted the ASEAN-OSHNET Workshop on Good OSH Practices in February 2009, with financial support from the ILO/Japan Multibilateral Programme. The initiative was very timely and helped to solidify the collaborative nature of ASEAN-OSHNET. The Government of Singapore and the ILO have further worked together to collect the OSH good-practice stories from the workshop presentations and discussions for sharing with a broader audience.

This publication showcases the diverse efforts and achievements of ASEAN countries to promote OSH from the grass-roots workplace level up to the national policy level. These efforts share the common goal of realizing decent and safe work for all workers. I see this publication as a milestone in the ongoing process of strengthening OSH practices and an important tool for greater network collaboration that can assist ASEAN countries.

I would like to express appreciation to the ASEAN-OSHNET members for their implementing and documenting these good practices. I also appreciate Tan Fang Qun of the OSH Division in Singapore's Ministry of Manpower and Tsuyoshi Kawakami, Senior Occupational Safety and Health Specialist in the ILO Subregional Office for East Asia for their collaboration in editing this publication, in cooperation with many ASEAN-OSHNET colleagues. I also extend thanks to the ILO/Japan Multibilateral Programme, which has long supported the efforts of ASEAN-OSHNET.

I am certain this publication will provide useful ideas for OSH policy makers, practitioners, workers and employers in ASEAN countries. The efforts and actions described here should also be useful at the international level. The ILO, as the agency to promote decent work, will continue to join the commitment of ASEAN-OSHNET and work together in realizing safe and healthy workplaces for all workers.

Bill Salter
Director
ILO Subregional Office for East Asia

Contents

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Cambodia
Dr. Leng Tong, Director, Department of Occupational Safety and Health, Ministry of Labour and Vocational Training
Dr. Seng Sakda, Director General, Department of Labour, Ministry of Labour and Vocational Training

Indonesia
Dr. Sukardio, Chief of Technical Area, National OSH Center, Ministry of Manpower and Transmigration
Dr. Supangkat Paulus Slamet Kromodiharjo, Subhead of Research, Regional OSH Office, Makassar, Ministry of Manpower and Transmigration

Lao PDR
Mr. Khamphat Onlasy, Deputy Director, Labour Inspection Division, Ministry of Labour and Social Welfare
Mr. Khamla Khoutlavong, ASEAN Department, Ministry of Foreign Affairs

Malaysia
Mr. Fdzlul Haq Abd Razi, General Manager (Operations), National Institute of Occupational Safety and Health (NIOSH Malaysia)
Mr. Zailee Dollah, Section Head, Design Section, Industrial Safety Division, Ministry of Human Resources

Myanmar
Mr. Win Kyaing, Director (Factory Inspection), Factories and General Labour Laws Inspection Department
Mr. Kyaw Kyaw Tun, Senior Staff Officer (Factory Inspection), Factories and General Labour Laws Inspection Department

The Philippines
Ms. Brenda Villafuerte, Director, Bureau of Working Conditions, Department of Labour and Employment
Dr. Dulce Gust, Executive Director, Occupational Safety and Health Centre, Department of Labor and Employment (OSHC-DOLE)

Singapore
Dr. Ho Siong Hin, Divisional Director, Occupational Safety & Health Division, Ministry of Manpower
Mr. Suresh Navaratnam, Director, Policy, Information and Corporate Services Department, Occupational Safety and Health Division, Ministry of Manpower
Mr. Goh Chye Guan, Director, Industry Sensing and Engagement Department, Workplace Safety and Health Council
Dr. Ho Sweet Far, Director, OSH Specialist Department, Occupational Safety and Health Division, Ministry of Manpower

Dr. Lee Hock Siang, Deputy Director (Occupational Medicine), OSH Specialist Department, Occupational Safety and Health Division, WHO Collaborating Centre and ILO CIS National Centre, Ministry of Manpower

Thailand
Mr. Vilert Jetiyanuwatr, National Institute for the Improvement of Working Conditions and Environment (NICE)
Mr. Thawesit Buntham, National Institute for the Improvement of Working Conditions and Environment (NICE)

Viet Nam
Mr. Bui Hong Linh, Vice-Minister, Ministry of Labour, Invalids and Social Affairs
Mr. Vu Nhu Van, Deputy Director-General, Bureau for Safe Work, Ministry of Labour, Invalids and Social Affairs
Mr. Nguyen Van Tien, Chief Inspector, Bureau for Safe Work, Ministry of Labour, Invalids and Social Affairs
Ms. Ha Thi Minh Duc, Department of International Affairs, Ministry of Labour, Invalids and Social Affairs

Japan
Mr. Yuki Shimazaki, Deputy Director, International Office, Industrial Safety and Health Department, Ministry of Health, Labour and Welfare

Republic of Korea
Dr. Ham Byeong-Ho, Deputy Director, Occupational Safety and Health Inspection Division, Ministry of Labor
Dr. Lee Joon-Won, Director, International Cooperation Department, Korean Occupational Safety and Health Agency
Mr. Cha Jung-Cheol, Assistant Manager, International Cooperation Department, Korean Occupational Safety and Health Agency

ASEAN OSHNET
Mr. Thongdeng Singthilath, Deputy Executive Director
Mr. Thonephokham Inthasone, ASEAN -OSHNET Coordinator of Lao PDR

ASEAN Secretariat
Mr. Donald Tambunan, Assistant Director, Human Development Unit
Ms. Ramadani Sukono, Technical Assistant, Human Development Unit

International OSH Expert
Dr. Kazutaka Kogi, Institute for Science of Labour, Kawasaki, Japan

ILO
Dr. Tsuyoshi Kawakami, ILO Sub-regional Office for East Asia, Bangkok, Thailand

Cambodia

1. Developing the First Occupational Safety and Health Master Plan 2009–2013

Department of Occupational Safety and Health
Ministry of Labour and Vocational Training

Introduction

Cambodia has been grappling for many years with the challenge of improving its occupational safety and health (OSH) conditions. There remains an urgent need to raise the country's OSH standards. The country's political stability and economic development over the past decade have created favourable conditions for the Government to now move forward.

The Department of Occupational Safety and Health (DOSH) is responsible for improving the OSH conditions. However, it is a relatively new department, and most employees lack a formal postgraduate degree in OSH or skills in management training.

Development of the OSH master plan

To confront the situation, the Cambodian Government wants to evaluate its OSH issues and needs. That evaluation will help identify clear and measurable goals and thus lead to a strategy that takes a longer-term view of the issues in order to meet those goals. To better develop and orchestrate these critical elements with a clear vision, the Government first step has been to develop an OSH Master Plan of Cambodia 2009–2013.

Creating the master plan involved joint effort from various ministries within the Government. The International Labour Organization (ILO) provided strong technical assistance under the ILO's Promotional Framework Convention on Occupational Safety and Health (No. 187, 2006). Representatives from trade unions and employers' organizations also participated in the plan's development.

Results

The plan prioritizes Cambodia's OSH needs into six action areas, as the following explains:

Action 1: Strengthen the national OSH system

The DOSH will review and enact essential additions to the OSH legislation to strengthen it where needed. This will have to be done with the buy-in and commitment from the tripartite partners. Hence, the DOSH will need to develop a tripartite consultation mechanism and strengthen collaboration among the partners. Collaboration will need to extend beyond the regular tripartite partners as well. Other ministries or agencies and international organizations and non-government organizations will also be involved in the further development of the national OSH system.

Another area of work within this action point is to encourage and assist local enterprises in establishing systems to improve OSH management in the workplace. The DOSH also will focus on disseminating practical OSH information to companies and workers to enhance their awareness of relevant issues.

Action 2: Improve safety and health inspections and compliance

The DOSH will aim to strengthen safety and health inspection capacities through such initiatives as: training to strengthen the capabilities of child labour inspectors to deal with the pressing issue of child labour, training to facilitate the implementation of work improvement programmes, and OSH training for provincial inspectors. International technical cooperation (such as with the Republic of Korea, Philippines and Singapore) will also help Cambodia improve its inspection capabilities.

Action 3: Promote OSH activities within employers' and workers' organizations

This will involve helping trade unions extend the reach of their OSH activities and helping employers meet international requirements. The DOSH will also support training activities conducted by workers' and employers' organizations.

Action 4: Implement special programmes for hazardous occupations

Focus areas within this action point are improvement of the OSH compliance rates and training for the construction industry. This will be done mainly through the ILO's Work Improvement in Small Construction Sites (WISCON) programme. This work-improvement programme leverages participatory training methods to reach out to workers and supervisors and assists them in carrying out low-cost and practical OSH improvements in their workplaces.

The DOSH will examine the working conditions in high-risk occupations, such as mining, to develop appropriate support policy and measures.

Action 5: Extend OSH protection to small enterprises

In addition, the DOSH will extend the ILO's Work Improvement in Small Enterprises (WISE) programme to raise OSH conditions in small and medium enterprises. Similar to WISCON, WISE is based on a participatory concept and targets small enterprises.

Action 6: Build OSH protection mechanisms for the rural sector and the informal economy

This action will include strengthening the promotion and conduct of OSH training for farmers and informal economy workers, particularly home-based workers, and also to protect child workers from hazardous working conditions.

Moving forward

Cambodia's master plan has enabled the DOSH to prioritize its activities for the next five years. Moving forward, the DOSH will develop a logistical framework to support the plan's implementation, ensuring the capture of good baseline data to evaluate the programmes and an ongoing monitoring of progress.

2. Extending OSH Protection to Informal Economy Workplaces

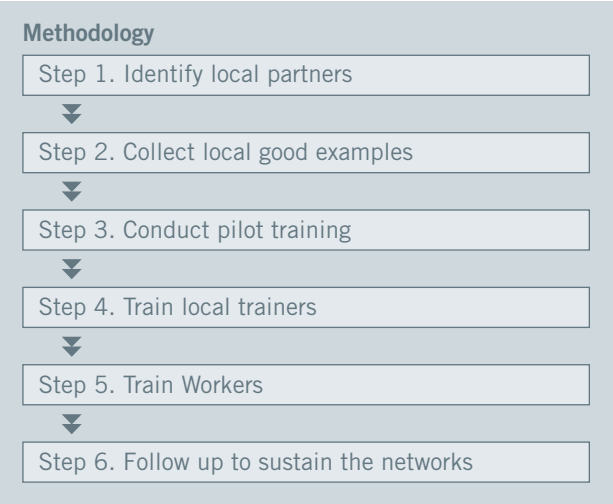
Introduction

Many people in Cambodia work in informal economy workplaces, such as a home, street vending, transportation services or unregistered small construction sites. The Labour Law does not yet cover workers in the informal economy. Thus, they have little OSH protection or service, even though their workplaces present many safety and health risks.

Work improvement programmes

The DOSH has leveraged participatory training methods to extend the coverage of its OSH services to informal economy workplaces. These methods are encompassed in three ILO work-improvement programmes that the DOSH has adopted– i) Work Improvement for Safe Home (WISH) for home workers; ii) Work Improvement in Small Construction Sites (WISCON); and iii) Work Improvement in Neighbourhood Development (WIND) for farmers. These programmes were adopted with technical assistance from the ILO's Informal Economy, Employment and Poverty Reduction Project (2004–2006).

The methodology (illustrated in the following diagram) used in each of these programmes involved the establishment of a team of DOSH and ILO officials working with representatives from workers' and employers' organizations and NGOs. The group visited informal economy workplaces looking for good OSH examples that were then incorporated into training materials.



Next, a pilot participatory training course was set up to train workers to identify practical improvements for their workplace. Participatory training tools, such as an illustrated OSH checklist, and group work were used to facilitate discussions among the participants and assist them in identifying practical solutions.

Following the evaluation of the pilot training phase, a larger-scale training course was organized for representatives from the government, workers' and employers' organizations and NGOs. These representatives became the local OSH trainers and trained workers through their individual networks. The trained workers then independently identified ideas to make positive changes and improve their working conditions using locally available, low-cost materials.

The DOSH in cooperation with the ILO also organized follow-up site visits and workshops to enable a platform

for exchanging experiences and maintaining the trainers' network.

Results

Four training-of-trainer (TOT) courses were conducted: i) in Phnom Penh for the central provinces, ii) in Siem Reap for the western provinces, iii) in Kratie for the north-eastern provinces, and iv) in Battambang for the north-western provinces. The participatory OSH trainer network has gradually increased its nationwide coverage. New partner agencies have joined that network in the course of participatory training development. For example, the Ministry of Women's Affairs joined the programme in 2008, trained its own OSH trainers and expanded training coverage through their networks to support women workers. The Ministry of Agriculture, Forestry and Fisheries also joined the network to train farmers.

A total of 267 trainers under the work improvement programmes have been trained; a total of 182 training workshops were organized and 4,777 workers participated. As shown in table 1, the trainees included 2,744 farmers, 803 home workers and 1,230 construction workers.

Table 1: Work-improvement programmes in Cambodia

	Trainers	Workshops	Trainees
WIND	83	81	2,744
WISH	84	52	803
WISCON	100	49	1,230
Total	267	182	4,777

Moving forward

The newly trained trainers reached many informal economy workplaces through their networks. The participatory training methodologies focusing on good practice approaches and low-cost improvement measures were useful for supporting workers' improvement actions. These participatory training programme experiences will be incorporated into the first OSH Master Plan and will be increasingly applied as a practical measure to help workers improve their safety and health in informal economy workplaces.

Indonesia

1. Condition of OSH in Micro, Small and Medium Enterprises: Risk Assessment Results

National Safety and Health Centre
Ministry of Manpower and Transmigration

Introduction

There were 177,012 enterprises operating in Indonesia in 2007. Only an estimated 15 per cent of them had received some form of technical OSH assistance. However, of those that received assistance, only about 20 per cent were classified as micro, small or medium enterprises (MSMEs). Yet, MSMEs employ some 87.4 per cent of Indonesia's workforce. Because of their size, they experience many challenges to implementing good OSH practices. Hence, it is important to examine the OSH conditions in MSMEs to clearly understand their needs.

The National Safety and Health Centre embarked on a research programme to examine the OSH conditions in the MSMEs in 15 regions in order to develop programmes to assist small companies in raising their OSH standards.

Research on the workplace conditions in MSMEs

The research programme focused on monitoring the level of exposure to certain types of hazards among 6,000 workers, such as:

- noise levels
- dust exposure
- ergonomic hazards
- chemical hazards
- vibration hazards
- heat stress.

To supplement the monitoring of hazards, the health conditions of the workers were also assessed, using the following:

- audiometer tests
- spirometer tests
- blood tests
- urine tests.

Results

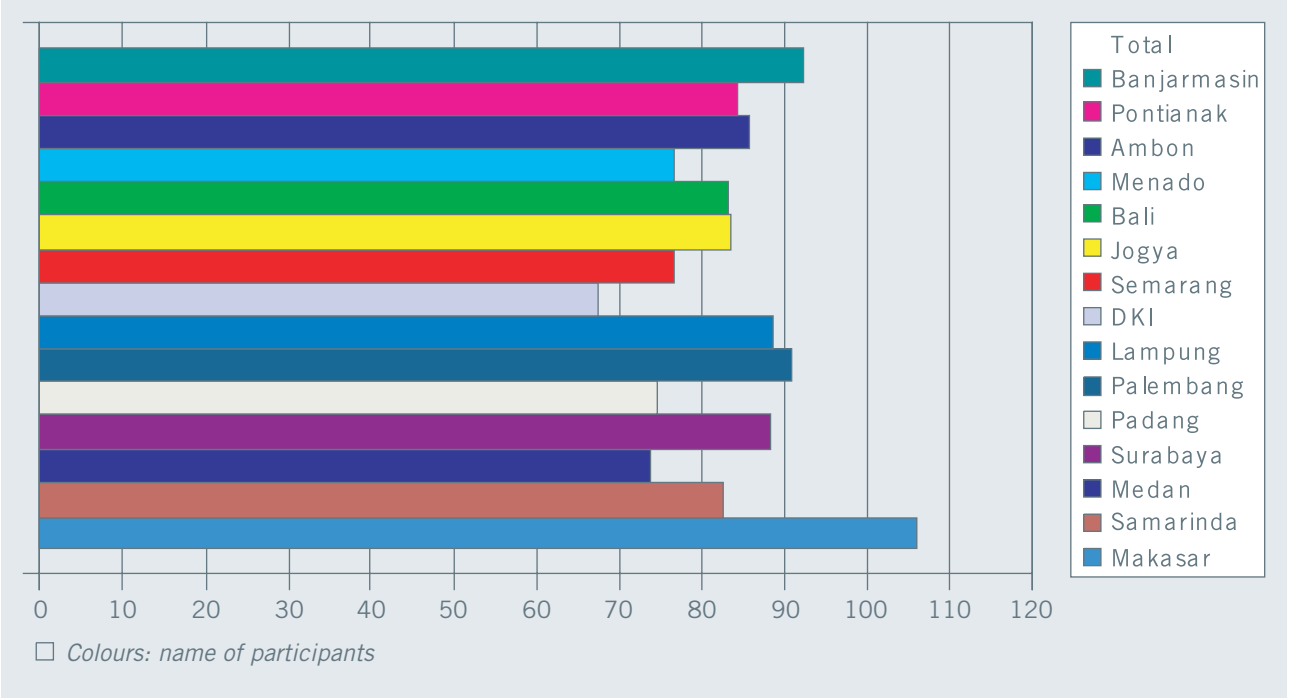
Table 2 presents the research parameters and figure 1 provides an example of what was found through the hazards assessment in terms of noise monitoring. As the results in figure 1 indicate, many workers in MSMEs are exposed to high levels of noise. The other assessment results also clarified important OSH risk factors that need to be addressed.

Table 2: Summary of research parameters (312 participants)

No. of workers monitored	
Female:	1,598 (26.64%)
Male:	4,402 (73.36%)
Blood tests:	3,000
Urine tests:	3,000
Audio tests:	3,386
Spiro tests:	1,944

No. of working environments monitored for noise and dust	
Noise:	453
Dust:	840

Figure 1: Example of noise-monitoring results (average noise level measured in decibels: dB)



Moving forward

The research results provide a good overview of the OSH conditions in Indonesia's MSMEs. These results will be further evaluated and analysed and will be an important source of evidence-based information as the DOSH plans and rolls out programmes to improve the OSH conditions in the MSMEs.

Lao PDR

1. Creating an Occupational Safety and Health Framework

Labour Management Department
Ministry of Labour and Social Welfare

Introduction

Since embarking on a new and more open economic policy in the 1980s, the Lao People's Democratic Republic has received foreign investment into its economy. The changes have reaped infrastructure development projects and the setting up of factories and other small enterprises, all of which have created employment opportunities. However, many workers lack experience in factory work; their awareness and understanding of the need for safety and of their right to have their health protected needs to increase. Employers' understanding of their responsibilities also needs to increase. There is a perception that the prevention of accidents is costly. Thus, a safety culture within many enterprises needs to be strengthened.

In 2005, the Ministry of Labour and Social Welfare, as the primary OSH regulator in Lao PDR, needed to introduce OSH legislation and develop the capabilities of OSH inspectors. But it had to do so on a tight budget.

National Occupational Safety and Health Programme 2005–2010

To improve its OSH standards, the Lao Government recognized the need to stimulate support and efforts from all stakeholders: the Federation of Trade Unions, the National Chamber of Commerce and Industry, and various government organizations.

Hence, the National Occupational Safety and Health Programme 2005–2010 was introduced to guide national efforts towards better OSH performance. There is strong tripartite commitment for the programme, and the Minister of Labour and Social Welfare has taken a personal interest in ensuring its successful implementation.

The national programme prioritizes the following actions:

- enhance existing labour laws to include OSH elements;
- institute a mechanism at the national and provincial levels to synergize all efforts in raising OSH standards; this includes setting up national and provincial committees to oversee activities, such as providing OSH training to workers, disseminating OSH information, conducting workplace inspections, collecting data and analysing OSH statistics, and recognizing top OSH performers to encourage further improvements;
- increase funding for OSH initiatives;
- pursue joint collaboration with Association of Southeast Asian Nation member states and other countries and international organizations to learn from their experiences.

Work-improvement programmes

A key part of the national strategy involves collaboration with the ILO in terms of adopting the Work Improvement for Small Enterprises (WISE) and the Work Improvement for Small Construction Sites (WISCON) programmes. Through these programmes, good OSH practices are first collected from site visits to small enterprises and construction sites. They are then used as examples to train representatives from government and employers' and workers' organizations as trainers. The trainers then organize on-site training to guide workers in developing practical, low-cost OSH tools.

Results

Since the introduction of the national programme, there has been a noticeable increase in OSH awareness among employers and workers in Lao PDR. This is evident in the progress made by the employers in implementing good OSH practices. Figures 2–3 show examples of improvements carried out by employers and workers after attending WISCON and WISE training workshops. The participants started with simple, low-cost improvements by using available materials with the intention of stepping up the level of change in a step-by-step manner.

Figure 2: Simple and beginning safety improvements in the construction industry

Before

After

Before

After

Figure 3: Simple and beginning safety improvements in the manufacturing industry

Before

After

Moving forward

The national programme has put in place a structured approach for Lao PDR to make good progress in improving OSH conditions in workplaces. Still, there are many challenges remaining. It will be important to the Government to continue to participate in regional and international collaboration. As well, the Government will need to focus on building up the OSH capabilities of relevant agency staff, raising OSH awareness throughout all industries and continually updating OSH legislation as needed.

Malaysia

1. The NIOSH Safety Passport

National Institute of Occupational Safety and Health

Introduction

In Malaysia, there is a gap in the safety culture between the workers directly engaged by multinational companies (MNCs) and those working for their subcontractors. The MNCs have the resources to ensure that their workers are well trained in safety and thus better protected from accidents. In contrast, their subcontractors' employees often lack OSH competencies and are more likely to be involved in accidents.

The Safety Passport System is an occupational safety and health induction programme specifically designed to address this gap. It can be customized to meet the needs of different industries in Malaysia. Over the past decade, the National Institute of Occupational Safety and Health (NIOSH) has developed several systems within the Safety Passport System in different industries. These systems aim to cultivate a safety attitude among workers and ensure that they receive safety training.

NIOSH Safety Passport

Through the Safety Passport System, workers receive induction training on safety within the workplace and are given a "passport" after they successfully pass an NIOSH-administered assessment. This "passport" enables them to gain access to specific plants or companies participating in the programme. Although, some participating companies may also require a "visa" before allowing access to their premises, which imposes additional requirements on workers.

The training programme is modular in nature, and there are two types of passport systems:

a. **Trade-based programme.** Workers do not need to complete all available modules. They receive training based on the needs of their trades.
b. **Generic programme.** Participants must complete all available modules.

An assessment is conducted for each module and typically consists of 20–40 questions. An examination committee sets the passing marks. After going through a module, a participant can attempt the assessment; they are entitled to a maximum of three failed attempts, after which they have to repeat the course again. A refresher training and assessment is required every one to three years, depending on industry, to keep workers current with the latest safety practices and developments.

Developing the systems

To develop a system, NIOSH officers first collected information on existing induction-training programmes provided privately by companies within the industry. Based on an evaluation of the various programmes, the NIOSH officers developed a standard curriculum. They then sought out industry feedback and support for the new programme.

The NIOSH officers next developed the course assessment, conducted a training of trainers and set up a database system to track workers' participation in the programmes. As an integral part of the programme, the trainers were required to have a minimum educational qualification and experience, and they needed to undergo robust training and assessment before being qualified to teach.

Finally, NIOSH conducted a publicity drive to increase contractors' awareness of the induction programme before it was officially launched.

Results

As a result of the Safety Passport programme, safety induction training curriculum was standardized and redundant training was eliminated. It also has provided a platform for workers in the same industry to share knowledge and experience with each other. Another important benefit of the systems was the creation of an integrated database to support workers. The assessment system ensured that all are equipped with basic safety knowledge.

NIOSH has developed more than a dozen Safety Passport systems, for such industries as oil and gas, fabricators, electronics/manufacturing, construction, port and airport operation, hospitality, energy and telecommunication. Participants in the programme have acknowledged that the number of accidents, unsafe activities and improper safety conditions within their workplace have reduced as a result.

Moving forward

NIOSH has been improving its system by benchmarking its Safety Passport systems against similar systems in Europe. Actually, the NIOSH Safety Passport system is considered more intensive and comprehensive in terms of content coverage. Because NIOSH is the only agency allowed to conduct the assessment, it has greater power to control changes regarding OSH standards.

2. Improving Transportation in Oil Palm Plantations

Department of Occupational Safety and Health
Ministry of Human Resources

Introduction

Fatal accident statistics reported to Malaysia's Department of Occupational Safety and Health (DOSH) show that many accidents in the agriculture sector have occurred in oil palm plantations and were related to transportation. In 2005, there were 12 fatalities in oil palm plantations, 11 in 2006 and 16 in 2007. The accidents were a result of the following conditions:

i) Workers were transported in the plantations using improper means.
ii) The access roads in the plantations were poorly maintained and are in poor condition.
iii) There was a lack of proper chemical handling procedures, thus exposing workers to chemical risks.

An initiative to encourage oil palm plantations to redesign and modify the tractors and trailers used to transport workers and chemicals around the premises was undertaken to improve their safety.

Results

Innovative transport solutions were created, as shown in figures 4–6.

Many of the solutions to the transport safety issues in the oil palm plantations were low-cost improvements that were easy to implement. Such efforts to improve the well-being of workers have motivated them to be more mindful of risks and dangers. Through this process, accidents and health issues have been minimized. The

Figure 4: Improved trailer designs used for transporting workers

work on the plantation also has become more organized because of the improvements. The result of these efforts has increased both productivity and cost savings for the plantations.

Figure 5: Improved trailer to minimize the risk of chemical exposures – trailer for spraying activities

Figure 6: Improved trailer carrying food compartment and clean water for workers

Moving forward

To encourage more plantations to adopt the innovative solutions, an OSH "carnival" in the agriculture sector was organized to increase awareness of good OSH practices among workers but in a light-hearted manner.

In addition, "employers and employees involvement seminars" were conducted to inform both management and workers within the oil palm plantations of the latest OSH developments, including the sharing of good practices.

Myanmar

1. Strategies to Meet OSH Challenges

Factories and General Labour Laws Inspection Department
Ministry of Labour

Introduction

The OSH legislative framework in Myanmar is embodied in the Factories Act of 1951 and the Oilfield (Labour and Welfare) Act of 1951. The primary OSH regulator is the Factories and General Labour Laws Inspection Department. Other agencies involved in regulating the OSH standards include the Boiler and Electric Inspection Division (Ministry of Industries); Planning and Inspection Department (Ministry of Mines); Occupational Health Division (Ministry of Health); the Ministry of Construction; the Ministry of Agriculture and Irrigation; and the Yangon City Development Committee.

Myanmar faces a broad range of OSH challenges, as indicated by the total number of work-related accidents recorded from 1996 to 2008 (table 3).

One of the challenges is the need to coordinate efforts at the national level. As well, the OSH capabilities among the inspectors and the workforce need to be improved. The expertise to develop engineering controls to ensure the safe use of machines has to be improved. In addition, with a total of 15,441 workplaces covered under the Factories Act nationwide (as shown in table 4) and a limited pool of inspectors, the regulatory approach needs to be reviewed to ensure optimal allocation of resources.

Results

Meeting OSH challenges

As the primary OSH regulator, the Factories and General Labour Laws Inspection Department focuses on enforcing current labour laws and providing OSH training and advice.

Table 3: Total number of work-related accidents in Myanmar, 1996–2008

Budget year	Degree of accident			Total
	Minor	Serious	Fatal	
1996–97	897	57	16	970
1997–98	547	81	12	640
1998–99	324	90	27	441
1999–00	426	100	24	550
2000–01	458	120	22	600
2001–02	455	130	25	610
2002–03	320	135	10	465
2003–04	187	107	13	307
2004–05	175	91	10	276
2005–06	126	57	7	190
2006–07	69	56	17	142
2007–08	88	63	32	183
Total	**4,072**	**1,087**	**215**	**5,374**

Table 4: Number of factories covered by the 1951 Factories Act

Division/state	Size of factory			Total
	Small	Medium	Large	
Yangon	2,373	206	412	2,991
Mandalay	2,406	67	85	2,558
Sagaing	2,308	29	15	2,352
Magwe	992	10	26	1,028
Ayarwady	1,755	25	27	1,807
Bago	1,699	37	41	1,777
Mon	745	8	16	769
Rakhine	415	6	12	433
Thannintaryi	437	7	12	456
Shan	1,253	9	8	1,270
Total	**14,383**	**404**	**654**	**15,441**

Moving forward

The Department further intends to introduce the following strategies to meet the numerous challenges Myanmar faces to raise its OSH standards:

- Set up a National Occupational Safety and Health Committee to ensure that the work of the different agencies involved in regulating OSH is coordinated.
- Enhance the reach of the Factories and General Labour Inspection Department in providing assistance to small and medium enterprises in adopting practical measures to improve workplace conditions.
- Develop the capabilities of inspectors to provide technical assistance to the manufacturing industry.
- Upgrade the capability of the Occupational Hygiene Laboratory to identify occupational hygiene issues and better support the OSH inspection regime.
- Leverage external technical and financial assistance to upgrade internal OSH capabilities.
- Establish an Occupational Safety and Health Centre to train workers, supervisors, safety officers and safety committee members.
- Participate in international collaboration to learn from overseas experiences in order to more effectively raise OSH standards.

Philippines

1. The National Occupational Safety and Health Framework

Occupational Safety and Health Centre
Department of Labour and Employment

Introduction

National Profile on Occupational Safety and Health

The National Profile on Occupational Safety and Health is an up-to-date account of the OSH environment in the Philippines. It thus guides OSH policy and programme implementation. The development of the national profile was based on extensive consultations with key OSH stakeholders; it consolidated information from the Department of Labour and Employment (DOLE) surveys on occupational injuries and illnesses, the Occupational Safety and Health Centre (OSHC) database of employee compensation claims and various case studies from different industries.

Results

National OSH framework

Arising from the national profile, a framework of action for the National OSH Plan for 2006–2010 was developed. The framework outlines a vision that all Filipinos workers are guaranteed the right to safe and healthy workplaces. The goal is to ensure that OSH policies, systems and programmes are harmonized to address the needs of all Filipino workers.

To deliver on the vision and goals, the Philippine Government recognizes that there are OSH challenges that must be addressed, such as the need to:

- formulate a comprehensive national policy on OSH;
- improve the governance of OSH standards at the national level and develop regional mechanisms to oversee the improvement of OSH standards;
- strengthen the flow of information and development of OSH skills at the enterprise level;
- address the issues that excluded workers and the most vulnerable worker groups face;
- improve the coverage of promotion efforts, awareness raising and technical services;
- improve the process of reporting and notification of work-related injuries and illnesses;
- improve OSH methods and approaches for controlling hazards and risks and their potential implications to workers' health;
- tackle the management of chemical safety nationwide;
- strengthen the business case between OSH, productivity and economic growth;
- bridge the gap between services available for workers' health protection and promotion.

Accordingly, six strategies have been identified to meet these challenges:

- engender a paradigm shift towards accident prevention;
- network through tripartite and other sector

support;

- strengthen the zero-accident programme in all regions;
- direct training and education to primary care givers and secondary and tertiary health services;
- harmonize OSH standards through legislation or administrative arrangements;
- focus on medical surveillance and research on emerging hazards, risk and illness;
- mobilize more resources to ensure coverage to critical areas, such as social health insurance for the more vulnerable populations.

The National OSH award

Gawad Kaligtasan at Kalusugan (GKK) Awards

An important component of the Philippines' National OSH Framework is the GKK Awards. This is a high-profile national award to promote and recognize achievements by enterprises and individuals towards zero accidents at the workplace.

The award encourages enterprises (both large and small) and individuals to implement safety, health and environment improvements by recognizing outstanding examples. The awards are presented every two years and are well regarded within the industry.

The pinnacle awards are the Presidential Award, the Labour Secretary Award and a Special Recognition Award.

Awards criteria

As a prerequisite, an enterprise company must have in place an OSH policy and programme that addresses the six criteria areas of the GKK framework, as shown in figure 7.

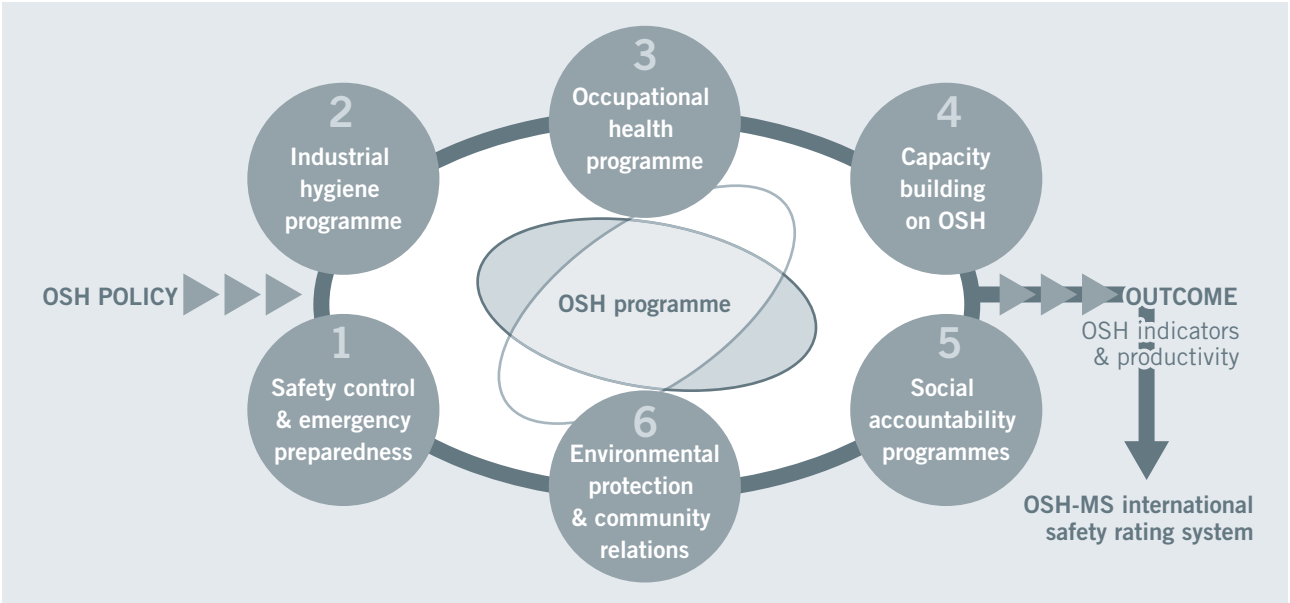
Individuals must have made an outstanding contribution in improving the OSH environment in their workplace. This can include developing innovative ideas that have a significant OSH impact in the workplace or OSH efforts that have resulted in increased productivity.

If the prerequisites are met, the DOLE will conduct two rounds of interviews to identify both the enterprise and individual awards winners.

Moving forward

The Government takes worker safety and health seriously and will continue to update and revise its management and monitoring of OSH conditions.

Figure 7: The GKK framework



2. Labour Standards Enforcement Framework: Bridging the Gap in OSH Enforcement

Bureau of Working Conditions
Department of Labour and Employment

Introduction

The enforcement of labour standards is important for ensuring that workers' basic rights and privileges, including their safety and health, are respected. In the Philippines, the Department of Labour and Employment (DOLE) employs around 200 labour inspectors who cover more than 700,000 establishments nationwide. Hence, only about 48,000 establishments, or 6–10 per cent, are actually inspected annually. It is critical to increase the effectiveness of the DOLE's enforcement efforts to secure higher levels of compliance to established OSH standards and OSH awareness.

Increasing enforcement effectiveness

In 2004, the DOLE developed the Labour Standards Enforcement Framework (LSEF). The LSEF aims to build a culture of voluntary compliance with labour standards and encourage self-regulation. The LSEF defines the parameters and methods that the DOLE can use to ensure better compliance with labour laws as well as strategies to enhance institutional capacity of the labour inspectorate.

When developed, the LSEF introduced a paradigm shift in the role of enforcement. It no longer limited enforcement to traditional inspections. Instead, the framework initiated new approaches and defined three enforcement modes:

a. **Self-assessment.** This approach targets large enterprises with at least 200 workers (about 2,596 companies, or 0.3 per cent of all enterprises) and all unionized establishments. The DOLE provides these enterprises with its inspection checklist for self-inspection. The management and worker representatives jointly conduct the inspection. The completed checklists are submitted to the DOLE for validation and further checks if necessary.

b. **Traditional inspections.** DOLE inspectors focus on inspecting the medium-sized establishments employing 10–199 workers, which accounts for about 60,278 companies, or 7.7 per cent of all enterprises, nationwide.

c. **Training and advisory visits.** The DOLE targets establishments employing less than ten workers and those registered as "barangay micro-business enterprises". This type accounts for about 720,191 companies, or 92 per cent of all enterprises. The DOLE provides OSH orientations and technical services to help these establishments identify areas for improvement. Such efforts help small companies to understand the benefits brought about by complying with OSH standards, such as higher productivity and business sustainability.

Results

Since its implementation, the LSEF has encouraged proactive private-sector participation in improving OSH standards. In particular, the role of safety officers and accredited OSH practitioners and consultants in the effective enforcement of the OSH standards has been strengthened. From a yearly average of 195 (from 1999 to 2003), the number of OSH personnel accredited by the DOLE increased to 302 on average a year (from 2004 to 2008). To date, some 2,200 OSH practitioners and consultants are accredited nationwide.

The LSEF also sparked the growth of complementary OSH programmes, as the following describes:

a. **Kapatiran WISE-TAV project.** The Kapatiran WISE-TAV project was introduced to enhance the training and advisory visits (TAVs). Initially, there were implementation problems with the TAVs, and the participation rate among MSMEs was low. This was primarily due to the lack of financial resources to conduct OSH orientation courses for smaller businesses, the lack of profile information on the small and micro enterprises, the setting of unrealistic targets and insufficient follow-up visits.

   Inspired by the Filipino tradition of "brotherhood", or kapatiran in the local dialect, the project was introduced to overcome some of those issues.

   As conceptualized by Brenda Villafuerte, Director of the Bureau of Working Conditions, large companies (or a "big brother") with good labour standards are engaged to adopt small enterprises (or "small brother") to share their resources and expertise in improving their work conditions, particularly the OSH standards. Through this project, large companies have an opportunity to pursue Corporate Social Responsibility in the area of OSH. Successful small enterprises are then given the opportunity to share their experiences with other small enterprises. As a result, the coverage of the TAVs has progressively expanded.

   Three big brother companies and 44 small brother companies participated in the initial pilot phase. The success of the scheme has inspired replication in several other regions. To date, the programme has expanded to 12 big brother companies together with 134 small brother companies.

   Table 5 shows the improvements among the participating small brother companies.

Table 5: Results of the kapatiran project implementation among several companies that are a "small brother" to one "big brother" company in manufacturing

Compliance among small brothers with critical OSH rules, before and after big brother assistance

Critical OSH rule	Compliance before assistance	Compliance after assistance
Registration of establishment	27%	100%
Health personnel	36%	100%
Safety officer	64%	100%
Employee accident/illness report	55%	100%
Annual accident illness report	55%	100%
Annual medical report	55%	100%
Continuing training on OSH	73%	100%

b. **Safety Milestone (Smile) Award.** The award is given to companies for their commitment in implementing good OSH programmes and activities. The award motivates and encourages establishments to strive for better OSH performance and complements the enforcement efforts.

   The Smile Award, as conceptualized by the Bureau of Working Conditions Director Villafuerte, recognizes companies for their commitment in implementing OSH programmes and activities that have resulted in an enterprise achieving a record of no disabling injuries, no lost-time accidents or safe work hours for at least a year.

This safety recognition program is a complementary mechanism which aims to motivate and encourage establishments to be steadfast in the implementation of OSH programs and activities and thus facilitate compliance with the provisions of OSH standards.

The Smile recognition award was started in 2006, when a certificate of recognition was issued to 20 companies, including their 10 subcontractors.

As a result of the increasing awareness on OSH and enterprises' commitment to implement good practices, an increasing number of businesses receive the safety recognition each year. Thus far, a total of 102 companies and 206 subcontractors have been recognized (table 6). These companies have employed some 132,205 workers and their OSH efforts have generated an estimated economic savings of more than 45 million pesos.

Table 6: Enterprises receiving the Smile award, 2006–2008

Year	No. of establishments	No. of contractors	No. of workers	No. of establishments
2008	51	157	55,309	24,970,849
2007	31	39	36,806	13,362,106
2006	20	10	40,090	7,056,945
TOTAL	**102**	**206**	**132,205**	**45,389,900**

The ILO has recognized the Philippines' efforts and provided more than 1 million pesos of financial assistance to enhance the LSEF implementation.

Moving forward

The LSEF has put in place a structured approach towards labour enforcement. Its success can be attributed to the active participation of all stakeholders. Moving forward, it is important to review the LSEF and continue to ensure that it remains effective. In particular, there is a need to enhance the information dissemination and promotional efforts under the LSEF, and continually monitor and update the statistics available on the state of workplace conditions in the Philippines.

Singapore

1. Programme-Based Engagement: Engendering Greater Industry Ownership of OSH Outcomes

Occupational Safety and Health Division
Ministry of Manpower

Introduction

In 2005, the Singapore government undertook a fundamental reform in our occupational safety and health (OSH) framework in order to achieve a quantum improvement in the safety and health standards. Three principles were established under the new framework:

- Reducing risks at source
- Engendering greater industry ownership of OSH outcomes
- Higher penalties for poor safety management

A target was set to halve the occupational fatality rate from 4.9 fatalities per 100,000 workers in 2004 to 2.5 in 2015, and attain standards of the current top ten developed countries with good safety records.

The enactment of the Workplace Safety and Health Act (WSHA) followed on 1 March 2006 to put in place a legislative framework to implement the three principles. The Act replaced the decades old Factories Act. Our former approach had focused on addressing risks presented at the physical workplace instead of tackling them at source. Under the new Act, all workplaces are required to conduct risk assessments to help identify and manage the sources of risks.

The Act also represented a significant shift from the prescriptive former legislation which spelt out in detail the safety requirements. The former approach created a mindset amongst the industry to simply follow the "letter of the law" and not address safety issues that fell outside the legislation. Given the pace of technological changes and differing work processes across industries, legislation will always lag behind safety risks. This unsatisfactory situation calls for the need to engender greater industry ownership of OSH outcomes. Hence, the WSHA emphasises the importance of managing OSH proactively, by requiring stakeholders to take reasonably practicable measures to ensure the safety and health of all individuals affected in their course of work.

Challenges

Implementing the three principles posed new challenges to the regulatory body. While enforcement actions and stiff penalties could create strong incentives for enterprises to improve their OSH standards, it was insufficient to ensure change.

Firstly, a strong impetus needed to be created for stakeholders to take ownership of their OSH outcomes and stamp out the root causes of deficiencies in their OSH system. This could be achieved by focusing intervention efforts on priority or high-risk areas, such as "targeting where it matters". This required a shift from the traditional approach of non-targeted or random selection of workplaces for intervention.

Secondly, for enterprises willing to improve but have a weak

capability, compliance assistance rather than enforcement became a more effective approach. However, it called for a more calibrated approach in the interventions.

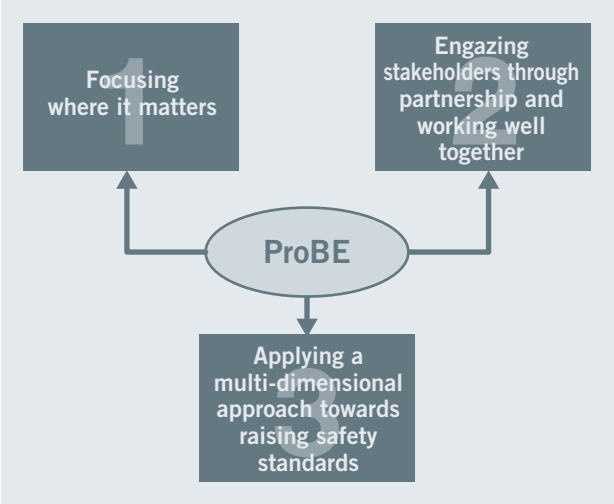
Programme-based engagement (ProBE)

The Programme-Based Engagement (ProBE) Initiative was conceptualized to meet the challenges. In its simplest form, ProBE is an engagement-centric programme developed to raise standards in priority areas identified as high risk. Launched in 2006, ProBE features a combination of approaches, from enforcement to awareness and competency building in order to help stakeholders understand what is expected of them.

The key thrust of ProBE

Three primary thrusts form the foundation of ProBE, as shown in the diagram below. Each thrust is designed to initiate a conceptual shift in the way the Government approaches and tackles occupational deaths and serious injuries in the workplace.

Figure 8. Three primary thrusts of the foundation of ProBE



The ProBE phases

Introductory phase: In this phase, the main causes of fatal and serious accidents are identified through careful analysis of accident statistics and data trends. The analysis forms the basis for the ProBE priority programmes. The priority programmes may target accident types, agents of accidents, injury types or a particular industry.

Industry preparatory phase: The preparation is a key period of the ProBE initiative. This phase entails raising awareness of workplace hazards and building up capabilities to better manage the hazards. A major launch event takes place to mark the commencement of the year's programmes and is typically graced by a senior political office bearer, such as the Minister of State. This gives further emphasis to the importance of the ProBE initiatives. Also, the media is used extensively to heighten public awareness to ensure that the ProBE messages reach a wider audience.

Thereafter, a series of engagement activities is initiated to communicate the underlying reasons for the poor performance for each individual programme. This is done through a combination of seminars, media events and information toolkits. The engagement efforts provide enterprises with opportunities to improve their OSH management systems and work processes.

Operations phase: During this phase, the Ministry of Manpower inspectors launch a series of workplace inspections to identify non-compliance and assess inadequacies at the systemic level as well as work with the respective duty-holders to augment the industry's drive to improve standards. The enforcement approach is calibrated to match the performance level of targeted workplaces.

Monitoring phase: With the completion of the engagement and operations phases, the Ministry of Manpower continues to monitor the targeted sectors to evaluate the effectiveness of the ProBE programme. An improvement in the OSH performance of a targeted sector is indicative of overall effectiveness of the programme.

Closure and communications phase: This marks the completion of the ProBE cycle, and the Ministry of Manpower publishes its findings and shares the results and key lessons learned with enterprises.

Results

Reduction in fatalities in targeted sectors

ProBE has achieved continued success in reducing the number of work-related fatalities in targeted sectors (table 7). For example, four priority areas were targeted in 2007: i) work at heights, ii) forklifts, iii) lifting equipment and iv) work in noisy environments. An overall reduction of more than 20 per cent in related fatalities from 2006 to 2007 was achieved in these four priority areas.

Table 7: ProBE 2007 score card

Sharing of enforcement doctrines

Another crucial feature of the ProBE is the sharing of the enforcement doctrines such as inspection guidelines and checklists, pertaining to the topic covered under a particular programme, with enterprises. These documents are the same that are used by the government inspectors during their routine inspections of workplaces. The intention is to highlight the key areas that present significant risks so that enterprises can focus their attention and interventions on managing the risks in their workplaces.

Strong industry partnerships

ProBE has generated significant contribution of industry expertise and participation from stakeholders. For example, a ProBE programme targeting the confined-space industry included the participation of eminent industry leaders such as the major global oil and petrochemical companies that were invited to share their good practices in the work in confined space and exemplary work procedures. The involvement of such industry players provided a platform for the Ministry of Manpower and industry stakeholders to collaborate and work together to achieve a common goal of improving the safety and health standards in targeted areas.

Moving forward

ProBE is a strategic engagement programme that has been designed to focus intervention efforts on priority areas to stamp out the root causes of safety and health deficiencies. This approach allows the Ministry of Manpower to deploy its efforts where they are needed most, to bring about significant improvements in safety performance and maximize the benefit for workers and employers. The thematic approach of ProBE also allows all stakeholders to focus their attention and channel the appropriate amount of resources to address specific OSH topics at a given time.

2. Industry Engagement and Outreach

Industry Sensing and Engagement Department
Workplace Safety and Health Council

Introduction

To influence better OSH behaviour, business must be encouraged to adopt good practices. A key strategy is to develop a business case to help businesses understand that good OSH practices will enhance their competitiveness. For example, strong OSH compliance typically leads to good corporate image and cost savings in terms of higher productivity and fewer disruptions to work due to accidents. Workers, too, need to be empowered to recognize OSH risks. Employers and employees who perform well should be recognized for their efforts. Such efforts will then help build a strong Work Safety and Health (WSH) culture.

Results

Outreach programme

Engagement and outreach are critical. To be effective, outreach has to be creative and highly visible to reach a wider audience. With this in mind, the Government undertook a multipronged approach to reach out and engage industry and the public, as the following explains.

National Workplace Safety and Health campaign

The National Workplace Safety and Health (NWSH) Campaign grew from a week-long event in 2006 to a month-long event in 2007 and 2008 and then a three-month event in 2009. In the midst of expanding the campaign, the Singapore Government managed to introduce creative means each year to spread OSH messages. For example, in 2007 the campaign's cornerstone was a safety-pledge drive. More than 50,000 people from all walks of life pledged to do their part to improve OSH conditions. This broke Singapore' s book of records for the largest number of pledges collected, and the compilation of the pledges formed the largest book ever produced in Singapore. In 2008, the Government rolled out a 40-foot container mobile exhibition to deliver OSH awareness to workplaces and into housing estates. Over the years, the Government has also increased the visibility of its publicity drive by using advertisements at bus stops, mobile advertisements on buses and radio to spread OSH messages.

Information dissemination

In the area of information dissemination, the Singapore Government has developed numerous mechanisms. For example, the WSH Bulletin is used to share OSH information among enterprises. This is an electronic newsletter that is broadcasted to more than 13,000 subscribers. A comprehensive set of web-based resources has been developed to support the improvement of OSH compliance. Guidelines, OSH manuals, training resources, posters and videos are all available on the

WSH Council website.

Singapore also leverages a number of outreach events to inform enterprises and and workers of the latest OSH developments. For example, at the Construction CEO Summit organized in 2008, developers and contractors gathered to exchange views on improving OSH conditions in the industry and pledged to make regular reports on their OSH statistics and strategies. Regular road shows were also organized to reach out to the large number of foreign workers in the higher-risk industries, such as construction and maritime.

WSH recognition and rewards

To complement the promotional and information dissemination efforts, the Singapore Government has introduced and gradually expanded the number of WSH awards that recognize good-performing companies and individuals who have made significant contributions to the OSH environment. Over the past few years, a special focus has been increasingly placed on recognizing the efforts of small and medium enterprises that have made great strides in their OSH performances and recognizing the work of outstanding WSH officers and supervisors.

bizSAFE

A critical part of the engagement and outreach efforts is to drive improvements through large organizations. This is mainly done through the bizSAFE programme. SMEs are certified through the bizSAFE programme at five levels, depending on their OSH capabilities. Larger companies will serve as bizSAFE partners who commit to engaging bizSAFE-certified SMEs as their clients. Some also serve as mentors to smaller SMEs to help them improve their bizSAFE certification levels.

Moving forward

The next step in Singapore's engagement and outreach efforts will be to formulate ways to extend the reach and depth so that all workers are convinced of the importance of OSH. This will eventually contribute to the creation of a vibrant OSH culture and lead to sustained and continued OSH improvements in Singapore.

Thailand

1. Safety Officer Training: Key for Enhancing OSH Performance in Enterprises

National Institute for the Improvement of Working Conditions and Environment
Department of Labour Protection and Welfare, Ministry of Labour

Introduction

Safety officers can have a positive impact on the OSH capabilities of the enterprises for which they work. In Thailand, the employment of safety officers has been mandated in certain high-risk sectors since 1985. The coverage of the requirements was expanded in 1997 to five high-risk industries – mining, quarries, petrochemical, manufacturing, construction and transportation, which were required by legislation to employ safety officers.

From 1986 to 1997, 6,400 additional safety officers were trained; but it was insufficient to meet the increased demand that came with the expansion in 1997. The situation became more challenging in 2006 when the coverage was further extended to seven more industries (table 8) and additional requirements were imposed.

The safety officers are differentiated by the training they receive: there are typically four types of safety officers – operational, supervisory, management and professional. The type of safety officer to be employed is based on the type of industry, as explained in table 11. All safety officers are trained by private providers. As of August 2006, more than 300,000 safety officers had been trained.

The new requirements introduced new challenges for the Ministry of Labour. There was a need to increase the number of safety officers; some 21,500 professional-level safety officers were estimated to be required by 2011. In addition, more private training providers were needed to meet the demand for more safety officers. However, the urgency for more safety officers and trainers could not compromise the quality of training delivery and the standard of training courses. Also, the further extension of the requirements meant that skills needed to be developed and safety officers re-tooled to have the necessary competencies to deal with the different OSH risks in new industries.

Safety officer training

The Department of Labour Protection and Welfare within the Ministry of Labour implemented an eight-step reform of the safety officer system in 2006 to meet the new challenges:

1. **Ensure that a training provider has a quality management system certification before accrediting the provider to conduct safety officer training.**

2. **Require training providers to meet minimum standards on training arrangements.** These include having competent staff to run training courses, full-time qualified trainers, proper training materials, equipment and training plans, and being transparent on the cost of each training course.

3. **Set up a system to monitor the quality of the**

Table 8: Summary of safety officer requirements in Thailand

Industry type	No. of employees	Type of safety officer required				
		Supervisor	Executive	Technical	Higher technical	Professional
1. Mining quarrying/petrochemical/petroleum	2	√				√
2. Manufacturing	2	√	√			
3. Construction	20–49	√	√	√		
4. Transportation	50–99	√	√		√	
5. Gas station	100	√	√			√
6. Hotel 7. Department store 8. Health care 9. Financial 10. Physical testing unit 11. Sport entertainment 12. Chemical or biological laboratory 13. Supportive unit for types 1–12 14. Other	From 20	√	√			

training providers. Each training provider is audited by the Department of Labour Protection and Welfare at least once a year.

4. **Establish minimum trainer qualifications for each level of safety officer courses, such as minimum educational qualifications and experience.** The trainers are also required to attend relevant occupational safety and health courses, totalling at least 12 hours, a year to continually upgrade themselves.

5. **Organize an annual seminar for accredited training providers to inform them of the latest OSH developments.** The seminar also serves as a platform for the regulators to have a dialogue with the training providers.

6. **Outline the duties and responsibilities of safety officers to clarify their roles.** These are contained in the Ministerial Regulation on Standard for Management of Occupational Safety Health and Environment, 2006.

7. **Mandate that safety officers attend a refresher training annually.**

8. **Produce brochures and Internet materials (www.oshthai.org) on useful OSH information to guide safety officer towards better performance.**

Results

Following the reform efforts, the quality of the training providers was strengthened. The number of contracted training providers reduced from 119 in 2006 to 65 in 2007 as result of the higher standards.

Moving forward

Despite the reduction in the number of training providers, the Department of Labour Protection and Welfare still managed to train 91,353 safety officers from September 2006 to June 2007. Refresher training courses for safety officers experience high participation rates and more improvements are expected.

2. Zero-Accident Campaign: Intensive Programme to Reduce Occupational Accidents

National Institute for the Improvement of Working Conditions and Environment
Department of Labour Protection and Welfare, Ministry of Labour

Introduction

Prior to 2001, the main programme in Thailand to encourage enterprises towards better OSH performance was the National OSH Award. This award evaluates a company's performance in four areas – i) occupational safety, health and environmental management policy; ii) safety management and prevention of accidents; iii) occupational health management and protection; and iv) environmental management. Thailand in 2001 recognized a need to enhance the programme to further motivate companies to focus on reducing occupational accidents and inspire more enterprises to imitate their performance.

Zero-accident campaign

The zero-accident campaign was introduced in 2001 to motivate enterprises to reduce occupational accidents in their workplaces to zero. As the first step, the campaign encouraged enterprises to establish an Occupational Safety, Health and Environmental Management System (OSHEMS), based on the OSHEMS guidelines published by the Ministry of Labour in 1998. Enterprises that meet the standards set out under the guidelines are eligible for an award from the Ministry of Labour. As shown in table 9, the award given is further differentiated based on the duration in which the enterprises had no work day lost due to occupational accidents.

Evaluation process

There are four steps in the campaign's evaluation process:

Step 1: Employer conducts a self-check on the application criteria.
This includes i) ensuring that the OSHEMS is in compliance with the established standards; and ii) evaluating the duration in which no work day was lost due to occupational accidents.

Step 2: Company submits application.
The company submits the necessary documentation to the provincial or Bangkok Labour Protection and Welfare Office to show proof that it meets the

Table 9: Zero-accident campaign award criteria

Award level	Criteria
Primary	No occupational accident that causes work day loss within 1 year (less than 1,000,000 hours)
Copper	No occupational accident that causes work day loss within the application period (1,000,000-2,999,999 hours)
Silver	No occupational accident that causes work day loss within the application period (3,000,000-9,999,999 hours)
Gold	No occupational accident that causes work day loss within the application period (from 10,000,000 hours)

award criteria. The application includes the working hours record, accident records and OSHEMS documentation.

Step 3: Provincial or Bangkok Labour and Protection and Welfare Office conducts audit.

Step 4: National Institute for the Improvement of Working Condition and Environment verifies the audit reports.

To facilitate the process, the National Institute for the Improvement of Working Conditions and Environment (NICE) launched a website (www.zeroaccident.org) in 2008 to provide information on the campaign, accept applications for the awards and publicize the award winners.

Results

Since the awards introduction, there has been a gradual increase in companies being recognized, as shown in table 13.

Companies that participate in the campaign give positive feedback on the initiative. Based on a survey of 134 companies that received awards in 2008, many agreed that the award had helped them enhance OSHE management in their organization, improve their business image and left them motivated to do more to improve their OSH performance (table 11).

The safety officer training and the zero-accident campaign are two initiatives that have contributed to an improvement in Thailand's OSH accident rate, as figure 8 indicates.

Moving forward

Thailand intends to further fine-tune the zero-accident campaign to assist and motivate small and medium enterprises towards better OSH performance.

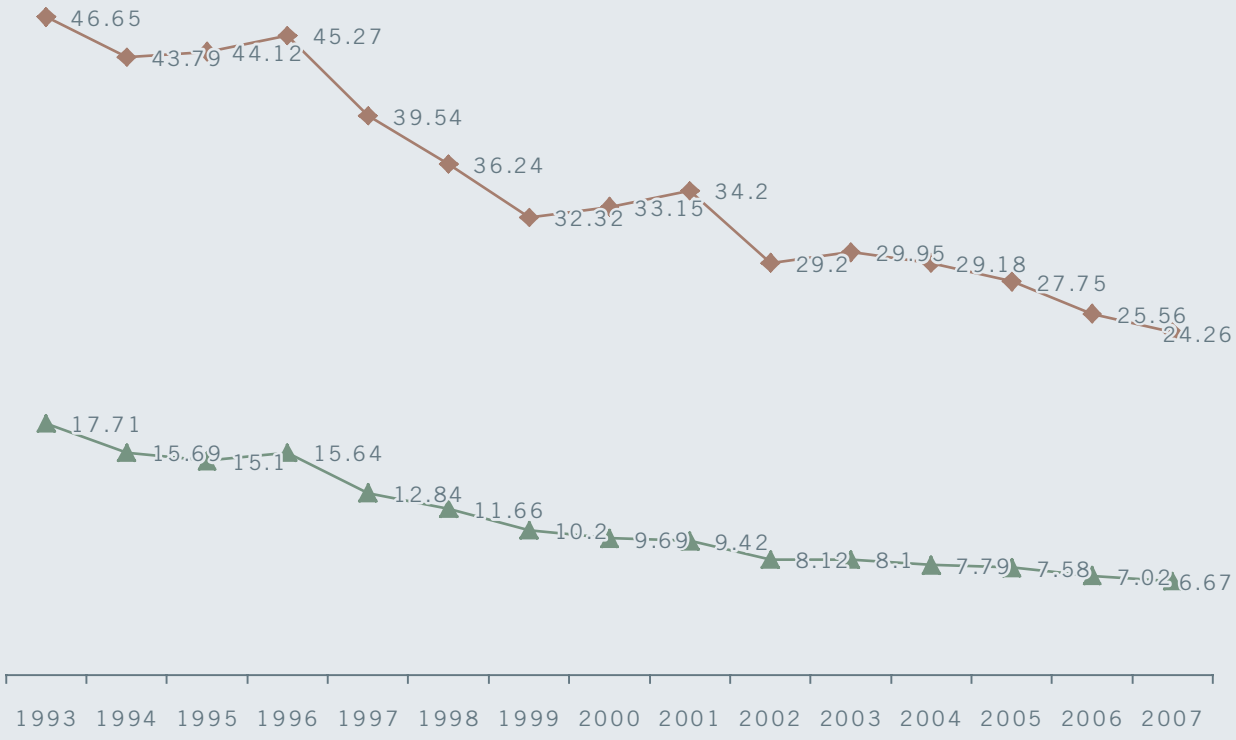
Table 10: Number of companies awarded under the zero-accident campaign

Year	Number of achievement companies				Total
	Gold	Silver	Copper	Primary	
2001–2004	8	21	55	108	192
2005	3	9	35	61	108
2006	5	12	29	42	88
2007	7	24	46	60	137
2008	10	36	79	101	226

Table 11: Survey results on the impact of the zero-accident campaign on companies

Issues	Degree of agreement				
	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
Zero-accident award helped enhance OSHE management in the organization	39	73	12	1	–
	(29.1%)	(54.5%)	(9.0%)	(0.7%)	
Zero-accident award helped improve business image	55	66	13	–	–
	(41.0%)	(49.3%)	(9.7%)		
Organization intended to continue OSHE performance to achieve a higher award level	67	57	10	–	–
	(50.0%)	(42.5%)	(7.5%)		

Figure 9: Occupational accidents and diseases in Thailand, 1993–2007



Incidence rate per 1,000 workers:
For all cases: red line
Excluding 3 days and less than 3 days absenteeism from work: green line

Viet Nam

1. Implementation of Occupational Health and Safety Standards in Small and Medium Enterprises

Bureau for Safe Work
Ministry of Labour, Invalids and Social Affairs

Introduction

Small and medium enterprises (SMEs) are a key focus for OSH efforts in Viet Nam. In collaboration with the ILO and with financial support from the Japanese Government, the Vietnamese Government has developed a number of programmes to help these enterprises. Much of the activity takes place through the ILO's Work Improvement in Neighbouring Developments (WIND) and Work Improvements in Small Enterprises (WISE) programmes.

Work-improvement programmes

Central to the work-improvement programmes is a network of resource trainers who guide workers in developing low-cost improvements to OSH conditions in a workplace. In leveraging the input of these trained workers, a multiplier effect is created when they become part of the network and help to train more workers.

The training is done using the Participatory Action Oriented Training (PAOT) method. This method provides participants with a first-hand experience in developing low-cost improvements for workplace OSH conditions. The resource trainers undergo a four-day training in six areas:

- developing an OSH checklist
- materials handling and storage
- machine safety
- workplace design
- working environment
- welfare facilities and work organization.

After the training of trainers, the new resource trainers conduct two-day courses for workers in their respective provinces. Typically, there are about 30–35 participants from SMEs in each course. During the training, the participants create practical action plans to improve the OSH conditions in their workplace, based on their experience, skills and actual available resources. To further enhance the impact of the training, each participating SME commits to implement the changes within two months.

Results

Viet Nam first piloted the WIND programme in 2004 before implementing the WISE programme in October 2008.

From May 2004 to July 2007, the WIND programme was conducted in 27 of the country's 63 provinces and has been instrumental in guiding farmers in applying simple and low-cost improvements. Currently, there is a network of about 140 provincial trainers and 768 volunteer farmers to help facilitate the improvement of OSH in the agriculture sector. More than 10,000

farmers have participated and over 40,000 improvements have been made. The WIND programme was expanded to 13 more provinces at the end of 2008.

Likewise, the WISE programme was received positively. Within one and half months of its introduction, a total of 216 improvement examples were developed by 32 participating enterprises in five provinces. Anecdotal evidence from a participating mining company in Thai Nguyen province indicates that the OSH improvements made raised labour productivity by some 21 per cent. Table 12 provides a summary of the WISE experience.

Moving forward

Participatory work-improvement programmes, such as the WIND and the WISE, are new approaches for providing practical services to farmers and workers in SMEs. The participating farmers and workers generate many low-cost improvement ideas that are easy to apply because they rely on available materials. Both the WIND and the WISE were integrated into the first National OSH Programme of Viet Nam (2006–2010) and are being used to reach more workplaces through the government, workers and employers networks.

Table 12: Summary of performance of companies in the WISE programme

Province	Number of participating companies	Number of improvements registered	Number of improvements completed (after 1.5 months)
Bac Kan	6	26	105
Thanh Hoa	6	60	60
Lang Son	6	16	23
Hai Duong	8	36	18
Thai Nguyen	6	12	10
Total	**32**	**150**	**216**

Japan

1. Japanese Experience in Improving Occupational Safety and Health: Key OSH Milestones

Industrial Safety and Health Department
Ministry of Health, Labour and Welfare

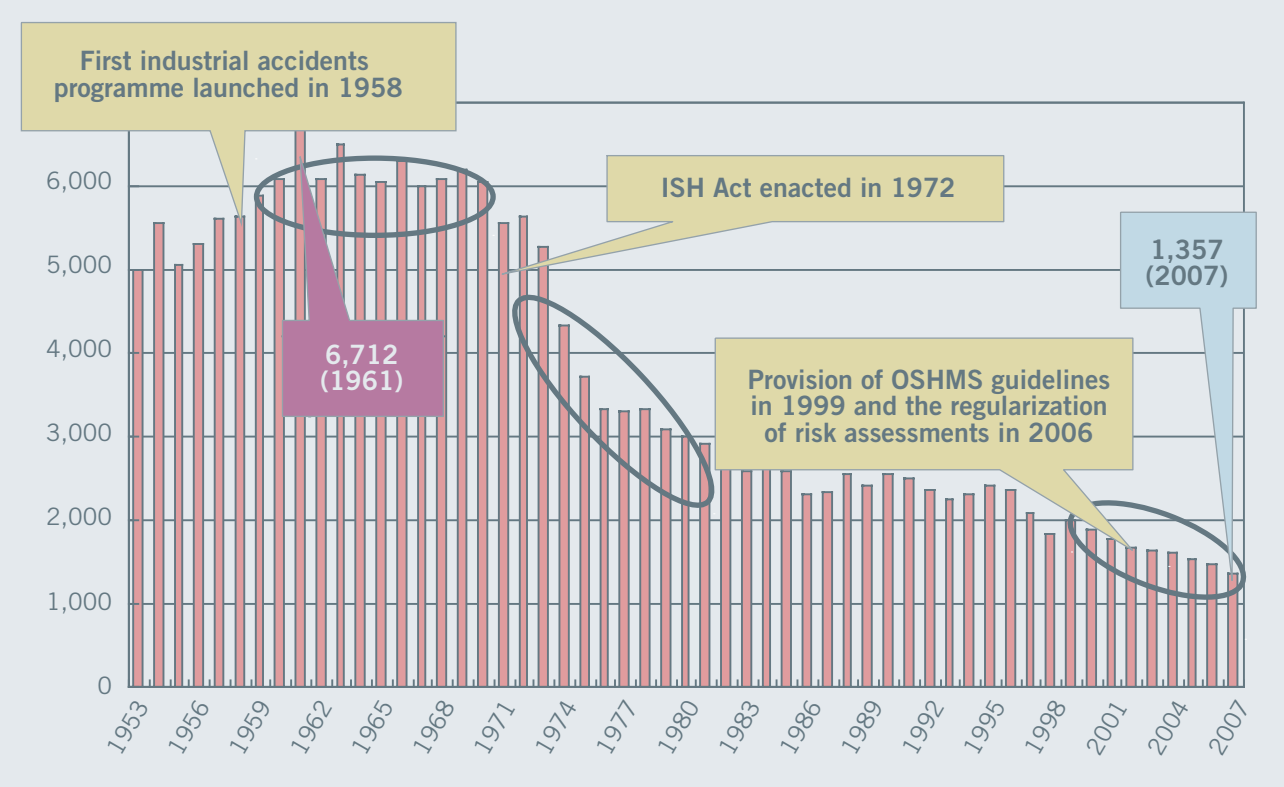
Introduction

There were three key OSH milestones in the development of the national OSH system in Japan:

a. Launch of the Industrial Accidents Prevention Programme in 1958
b. Establishment of the Industrial Safety and Health Act in 1972
c. Provision of the OSHMS guidelines in 1999 and the regularization of risk assessment in 2006

These milestones marked the turning points in Japan's OSH performances as illustrated in Figure 10.

Figure 10: OSH turning points in Japan and the number of work-related fatalities, 1953–2007



Launch of the Industrial Accidents Prevention Programme in 1958

In the late 1950s, there was a huge increase in industrial accidents due to the country's rapid industrialization, which brought about high economic growth. To address the issue, the Japanese Government introduced a five-year national programme to prevent industry accidents.

There was high-level commitment from the Cabinet for the programme and strong tripartite involvement. It galvanised the efforts of all stakeholders and as a result, OSH accidents eventually began to reduce in 1962. This programme was an integral part of Japan's national OSH system to achieve continuous improvements in OSH. The programme has been periodically reviewed and revised every five year; especially, the latest national OSH programme (11th national programme launched in April 2008) was developed in full reflection of ILO Promotional Framework for OSH Convention (No. 187, 2006), of which Japan became the first country to ratify in July 2007. Using the Plan-Do-Check-Act (PDCA) cycle on a national level, the programme is reviewed and subsequent programmes are launched to drive further OSH improvements.

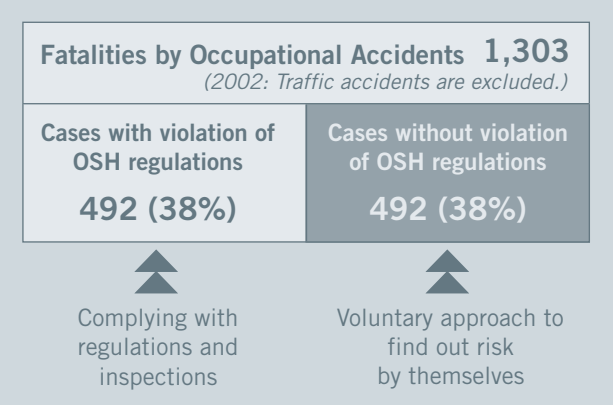
Establishment of the Industrial Safety and Health Act in 1972

Prior to 1972, the Labour Standards Act regulated OSH conditions. As part of Japan's strategy to improve the OSH conditions, the Industrial Safety and Health Act was introduced as stand-alone legislation. The 1972 Act imposed greater responsibility on top management for OSH issues and also imposed responsibilities on the master contractor in the construction industry. The Act further raised the industry awareness on OSH issues and streamlined legislative requirements to greater clarify roles and responsibilities within enterprises.

Provision of OSHMS guidelines in 1999 and the implementation of risk assessments in 2006

Manufacturing processes greatly increased in variety in the early part of this decade. But with the introduction of new machinery and chemicals came a wide range of hazards. The conventional OSH legislation became limited; in 2002 (figure 11), more than 60 per cent of work-related fatalities actually occurred without violating the OSH legislation. In addition, the type of employment structure was also changing gradually, with the number of temporary and contract-based workers expanding. This increased fluidity of workers meant an increase in the number of inexperienced workers. The problems were further compounded by the retirement of workers and managers of the baby-boomer generation who had tacit OSH knowledge and experiences at the workplace. With such OSH trends, it became apparent that a voluntary and systematic approach to find potential risks was needed.

Figure 11: Limitation of legislation due to the diversity of manufacturing processes



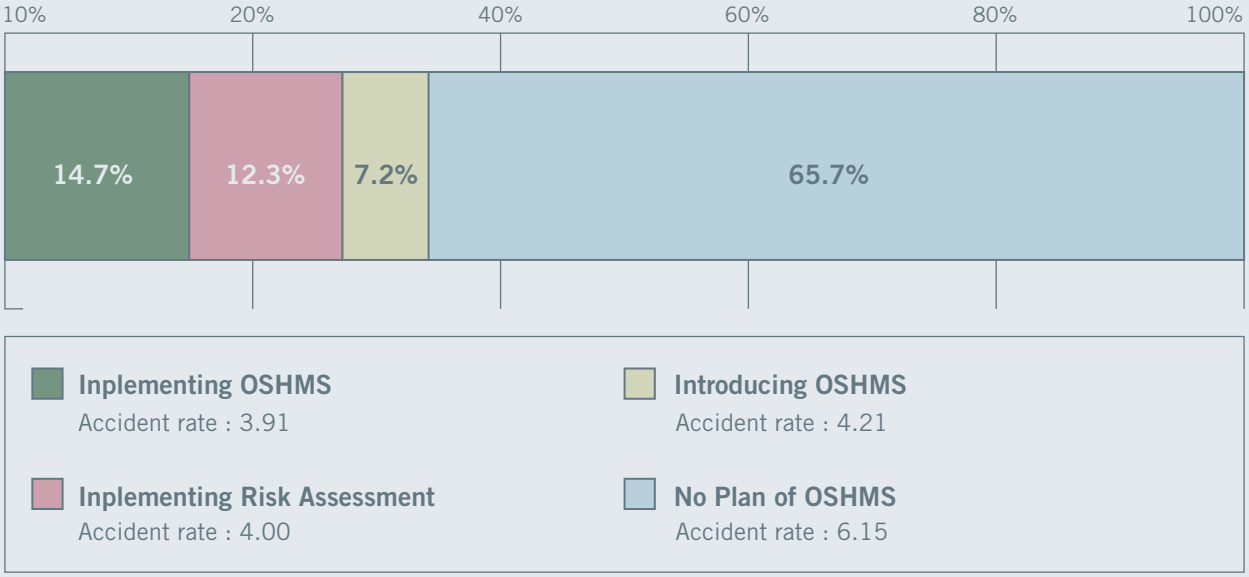
Results

The Government realized the need to add proactive OSH management methods to the conventional reactive OSH management, which emphasized compliance with legislation. The proactive methods required the development of OSH management systems within enterprises to reduce the reliance on individual competencies to ensure good OSH performances. OSH Management Systems (OSHMS) and Risk Assessments were the two key tools to realise this. The impact of these tools is illustrated in Figure 12. Although factors such as motivation of employers are not controlled, OSHMS and Risk Assessment are found to be effective to reduce accident rates.

Moving forward

To address the fluid nature of industry conditions, the Government issued guidelines on OSHMS in 1999. These guidelines were adopted from the ILO-OSH 2001 standards and further tailored to suit the needs for different industries. A revision to the Industrial Safety and Health Act in 2006 further required employers to voluntarily conduct risk assessments. To assist employers, collaterals were developed to inform them of the changes and guide them in conducting risk assessments. The Government began subsidizing training programmes to train SME personnel to conduct risk assessments.

Figure 12: Differences in accident rates among companies with and without OSH management systems or risk assessments



2. Efforts to Reduce Asbestos-Related Diseases

Industrial Safety and Health Department
Ministry of Health, Labour and Welfare

Introduction

The importation and use of asbestos was commonplace in the 1970s and 1980s in Japan. After the dangers of asbestos were highlighted, the Government increased control over its use. However, due to the long latency of the harmful effects, a dramatic incidence of work-related lung cancer and mesothelioma requiring compensation appeared only in recent years, as shown in figure 13.

The rise in work-related illnesses triggered urgent need to:

- prevent further exposures to asbestos
- deal with the issues brought about by the existing asbestos.

Results

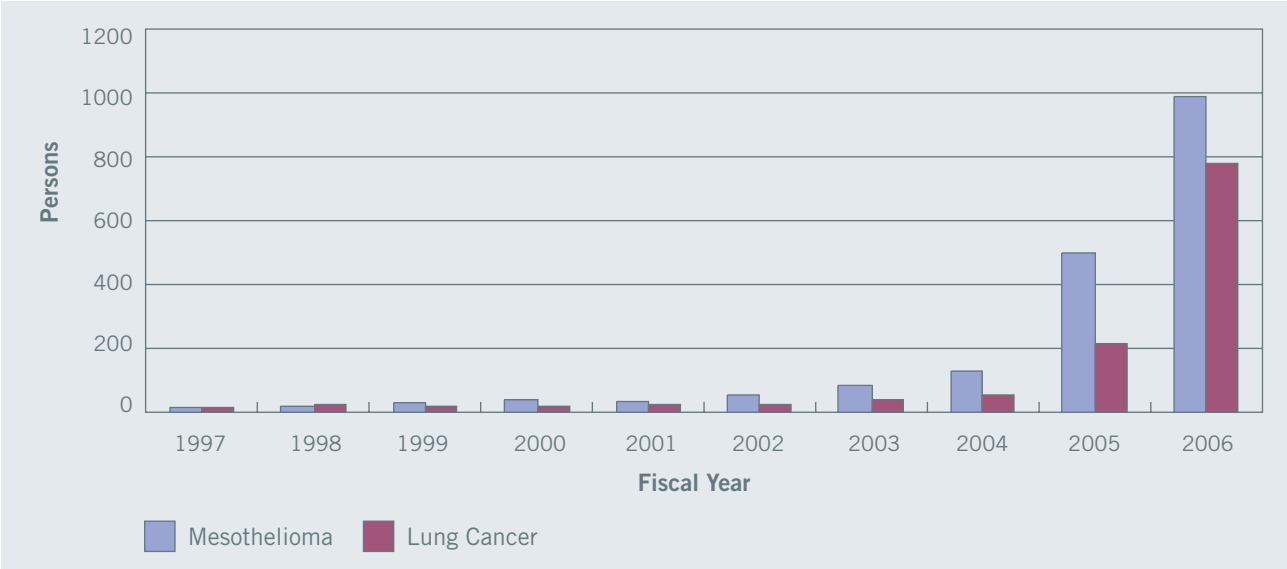
Preventing further exposures to asbestos

The key strategy is to prohibit its manufacturing and use. This has been gradually being implemented since 1975 when the spraying work of asbestos containing materials was prohibited. By 2007, in principle the manufacturing of all asbestos products was prohibited.

Dealing with the issues brought on by existing asbestos

To control the impact from existing asbestos required measures to ensure proper handling of existing asbestos.

Figure 13: Increase in the number of compensated cases of work-related lung cancer and mesothelioma in Japan, 1997–2006



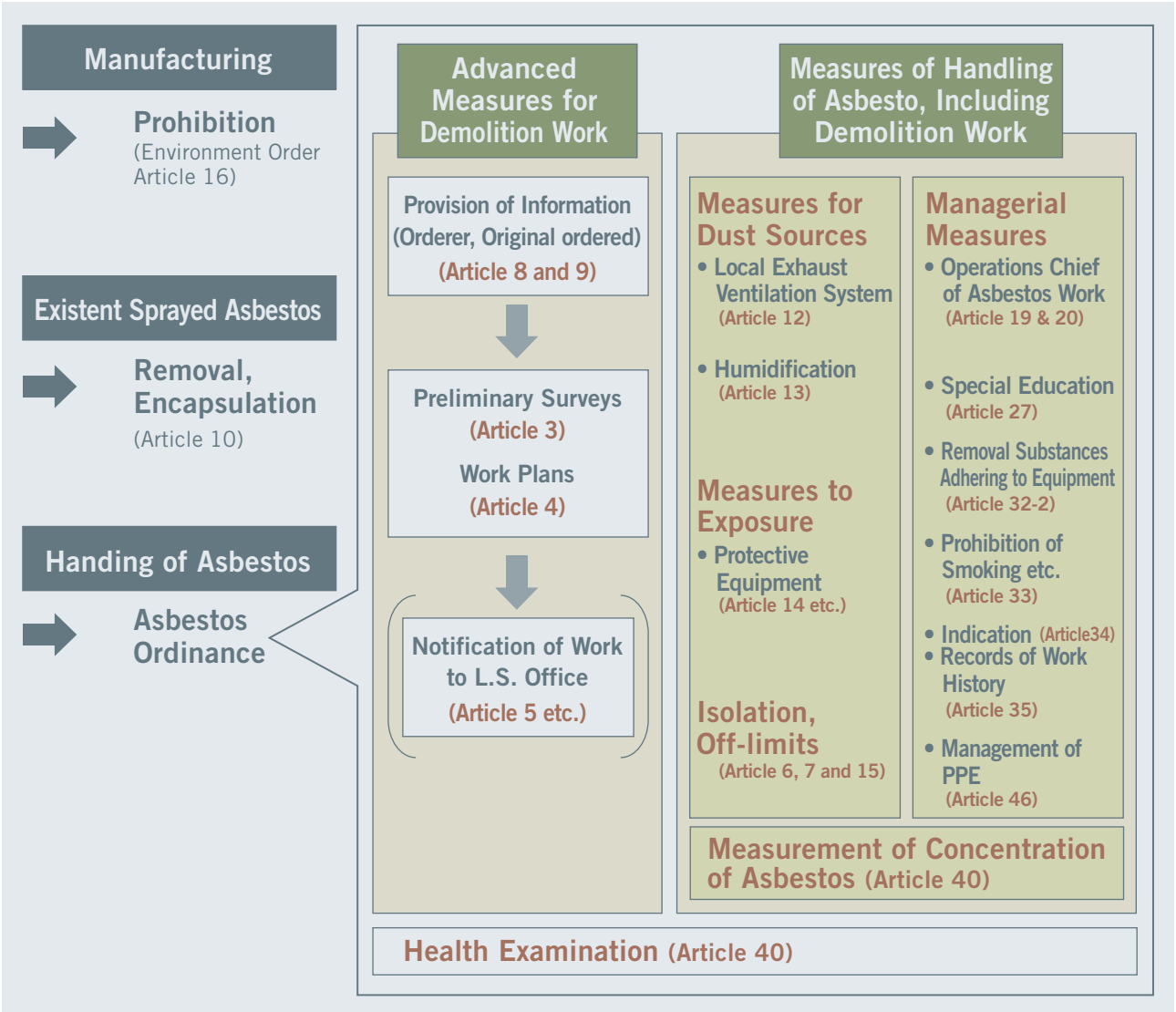
Most of the existing asbestos is contained in building materials used in the 1970s and 1980s. Exposure typically occurs when old buildings are renovated or demolished. Thus, the Government enacted the Asbestos Ordinance in 2005, which outlined proper handling measures in demolition work. An outline of the Asbestos Ordinance is shown in figure 14.

The Ordinance also imposes requirements to ensure proper removal and encapsulation to minimise the exposure to asbestos dusts. These include requiring advance notification and plans for demolition work involving asbestos, measures for asbestos dust-control systems (e.g. exhaust systems) and the use of protective equipment or isolation to minimise exposure. Requirements for a system to manage the work and equipment used were also imposed. In addition, it is now mandatory for at-risk-workers to go for regular health examinations to ensure that any health problem is arrested in its infancy.

Moving forward

The legislation is part of the Government's strategy to ensure that the long-term social costs of asbestos exposure are internalized by companies.

Figure 14: Outline of the asbestos ordinance, 2005



Republic of Korea

1. CLEAN Workplace Programme for Small Enterprises

Korean Occupational Safety and Health Agency

Introduction

In the Republic of Korea (Korea), around 80,000 workers are injured in occupational accidents each year. About 40 per cent of those accidents occur in the manufacturing industry, and 70 per cent of the accidents happen in small-sized workplaces with less than 50 employees. There is a general perception that the working conditions in these smaller workplaces are "dangerous, dirty and difficult", known as the "3Ds".

The accidents typically occur because employers lack the financial capacity for investment into OSH facilities or the technical expertise to manage OSH conditions and/or because both employers and employees lack OSH awareness.

CLEAN Workplace Programme

To help small workplaces improve their OSH management, the Korean Occupational Safety and Health Agency (KOSHA) implemented the CLEAN Workplace Programme in October 2001. Endorsed by the Ministry of Labour (MOL), the programme provides government funds for activities and improvements aimed at preventing work-related accidents. The programme was designed to support the elimination of hazardous and dangerous factors in workplaces so that clean and comfortable conditions are created, thus encouraging more workers to seek employment in small enterprises.

Through the CLEAN programme, KOSHA occupational safety experts assist selected small-sized enterprises through providing risk assessment consultations. This then leads to an action plan to improve OSH conditions in the workplace. If the enterprise qualifies under the "CLEAN Workplace Programme", KOSHA provides financial assistance to offset a portion of the

Table 13: Financial assistance provided per workplace through the CLEAN Workplace Programme

Category		General industry (Manufacturing industries that is not considered hazardous)	Hazardous industry
Total		**Max. US$23,077**	**Max. US$30,770**
Basic financial support (US$7,692)	Less than 10 employees	100% of the expenses (up to $7,692)	
Additional financial support (US$15,384–$23,077)	10-49 employees	70% of the expenses (up to $7,692)	
Additional financial support (US$15,384–$23,077)		50% of the excess expenses (up to $15,384)	50% of the excess expenses (up to $23,077)

** US$1 is equivalent to approximately 1,300 Korean won*

improvement costs. However, the enterprise needs to show improvements before any financial support is disbursed. Table 13 displays the amount of financial assistance provided for a total of 168 items under the Programme; these include 122 safety devices, 27 possible improvements to the working environment and 19 types of working procedures improvements.

A CLEAN Workplace Certificate is issued to workplaces that have successfully developed safe and healthy workplaces through the programme. To ensure that the improvements are sustained, KOSHA performs an OSH assessment of the certified workplaces annually.

Results

The 50,000th CLEAN Workplace Certificate was awarded in 2008. By the end of 2008, 52,737 workplaces received a certificate, and 546 billion won (US$420 million) of financial assistance was disbursed (table 14).

Since implementation of the CLEAN Workplace Programme, there has been an annual average decrease of 28.2 per cent in occupational accidents (table 15).

Going by the rate of accident decreases, an investment of 346.7 billion won (US$266 million) resulted in the prevention of injuries and illnesses to 6,104 persons. If the compensation cost per accident is taken into account, this means a savings of 192.4 billion won ($148 million) worth of direct losses to businesses. When extrapolated based on the Heinrich method, businesses were spared a total loss of 961.8 billion won ($740 million) due to occupational accidents. Hence, a net loss to businesses of 615.1 billion won ($473 million) was avoided.

Moving forward

The CLEAN Workplace Programme set out to reduce the proportion of workplace accidents in manufacturing workplaces with less than 50 workers from the 1.98 per cent (recorded in 2001) to less than 1 per cent by 2013. To do so, the number of workplaces that are supported under the programme, in particular the hazardous and dangerous industries, will increase by 6 per cent or more each year.

Table 14: Amount of financial assistance disbursed, 2001–2008

Year	No. of applications received	No. of workplacesprovided with risk-assessment consultation	Amount released	
			Certified workplaces	Grants (billion won)
2008	32,640	13,693	10,508	100
2007	27,355	14,728	9,834	99.4
2006	20,491	10,279	8 600	100
2005	31,997	21,298	10,330	111
2004	15,179	12,774	5,264	56.3
2003	8,051	7,745	3,780	31.8
2001–2002	13,687	13,080	3,421	47.5
Total	**149,380**	**93,597**	**52,737**	**546**
	(100%)	**(62.6%)**	**(35.3%)**	

Table 15: Reduction in occupational accidents in CLEAN workplaces, 2002–2008

Category	2002	2003	2004	2005	2006	2007	2008
Accident rate	↓ 19.1%	↓ 18.2%	↓ 48.3%	↓ 23.6%	↓ 26.7%	↓ 27.2%	↓ 34.6%

** " ↓" means decrease of figure*

Research Papers

1. The Value in Promoting Good Occupational Safety and Health Practices

By Kazutaka Kogi
Institute for Science of Labour, Kawasaki, Japan

1. Advances in promoting good occupational safety and health practices

A prominent trend in risk-management programmes in the workplace is to emphasize the value of good practices already achieved in the local context. This emphasis reflects the need for voluntary OSH programmes in increasingly diversifying work situations. Awareness is growing that voluntary programmes are effectively promoted by learning from good OSH practices applied in various situations despite many constraints.

The experiences in our inter-country network review of participatory OSH programmes in Asia demonstrate that the action-oriented nature of risk reducing is particularly useful. These experiences confirm that participatory approaches and good practice examples do indeed encourage workplace improvements in small-scale workplaces.

To further promote good OSH practices, it is important to develop action-oriented programmes that are adjusted to a local situation. This is done by providing direct support for training in practical risk-reducing improvements that reflect local good practices. The value of good OSH practices is enhanced when the training activities i) build on good examples locally achieved, ii) focus on practical improvements in multiple technical areas, and iii) use locally adjusted toolkits suitable for facilitating participatory activities. These features are useful in further developing the good-practice approaches in many countries.

2. Building on local good practices

Our survey of OSH programmes in Asian enterprises demonstrates that a safety culture is commonly accepted as the key to preventing work-related injuries and diseases. These enterprises emphasize risk management with shared responsibility for establishing a preventative culture in the workplace. They aim to engage good practices with the support of management systems and participatory steps.

The OSH programmes of our network partners (http://www/win-asia.org/) commonly apply participatory methods in small enterprises, agriculture and home-based work. Typically, trained trainers act as facilitators of the improvement process. Table 16 cites the main features of these programmes; most are based on the Work Improvement in Small Enterprises (WISE) methodology, which the ILO developed. Participants learn about existing local good practices applied locally and plan similar and practicable improvements that have real impacts on risk reduction in their workplace.

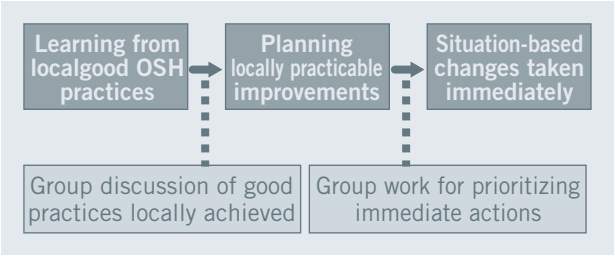
Thus, the participatory steps taken by these programs are clearly aimed at building on local good practices as shown in figure 15. Group discussion of good practices locally achieved can guide participants about practicable

Table 16: Main features of the participatory programmes among network partners

Programmes	Participatory steps	Facilitation by trainers
Programmes dealing with work-related risks in industry and services	2–5 day workshops on risk-reducing measures, with follow-up	Presenting local good practices; group work on practicable options; feedback on gained results
Small enterprises (WISE – Work Improvement in Small Enterprises)	2–10 day courses on low-cost improvements and group work on action plans, with follow-up	Presenting local good practice; focus on low-cost ideas; follow-up visits
Farmers (WIND – Work Improvement in Neighbourhood Development)	1–2 day workshops on practical improvements and action plans, with follow-up	Presenting local good practices; focus on low-cost ideas; helping with reporting
Trade unions (POSITIVE – Participation - Oriented Safety Improvement by Trade Union InitiatiVE)	2–4 day seminars on low-cost improvements and group planning	Learning local good practices; group work on practical improvements and action plans

changes. Successful examples collected from the same local situations can thus facilitate the planning and implementation of immediate improvements.

Figure 15: Participatory steps for building on local good practices



The broad coverage of workplace problems obviously relates to injury risks, heavy materials handling, repetitive work operations, constrained postures, environmental effects as well as stressful work organization. It is confirmed that the knowledge and attitudes gained through local good practices are useful for reducing workplace risks in small enterprises, construction sites, small-scale farms and home workplaces. The reports from the WISE, WIND and POSITIVE programmes in many countries reveal the efficacy of the steps taken.

3. Focus on low-cost improvements addressing multiple risk factors

The second common feature of these programmes is their focus on simple, low-cost improvements in all the technical areas covered. This emphasis on low-cost improvements has proven useful in guiding people about selecting appropriate options that can be realized in each local situation.

Case studies confirm that there are many low-cost improvements in any of the technical areas addressed. These improvements help people understand versatile procedures and take voluntary action. In selecting the low-cost options, all the reviewed programmes concentrate on those simple improvements which apply basic principles of ergonomics and occupational hygiene. Typical such options corresponding to these basic principles are listed in Table 17.

Examples of these principles include fewer and faster handling of materials, easy reach and elbow-level work, coded displays, isolated or screened hazard sources and shared teamwork. It is important that many low-cost improvements represent practicable risk-reducing measures that have real impacts.

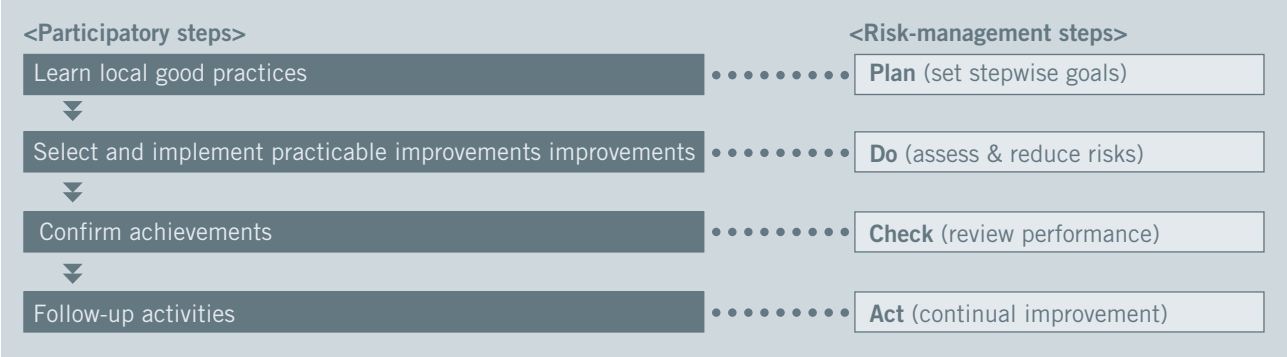
4. Using locally adjusted toolkits for participatory improvements

In the reviewed programs, training toolkits incorporating photographs of local good examples, action checklists and illustrated how-to guides are used effectively throughout the training steps. As these toolkits highlight locally available improvements, they can facilitate group

Table 17: Examples of basic principles and risk-reducing options applied in technical areas

Technical areas	Basic ergonomic principles	Examples of corresponding checkpoints
Materials handling	Organized storage Mobile devices and lifters	Provide multi-shelves/home for tools Use mobile racks or lifters for moving loads
Workstation design	Elbow-height work Easy-to-distinguish displays	Adjust work height and keep materials in easy reach Attach labels/colour coding
Physical environment	Use daylight/proper ventilation Isolation of hazard sources Personal protection	Provide skylights/use push-pull ventilation Use guards and isolate noise or hazardous sources Designate sites where Personal Protective Equipment (PPE) must be used
Welfare facilities	Sanitary facilities Refreshing facilities	Provide hygienic drinking water/toilets Provide resting corners
Work organization	Self-paced teamwork Work-rest regimes	Provide buffers and autonomous teamwork Insert short breaks

Figure 16: Participatory workplace improvement steps corresponding to a plan-do-check-act method for risk management



work on immediate changes in each local situation. Usually, an action checklist presenting typical low-cost options is used in combination with a manual describing how-to information of these options. As the action checklist presents the options in the action form, such as "use push-carts and mobile racks", its use through workplace walkthroughs can help the users identify practical improvements. The combined use of such group work tools can effectively support the planning and implementation of priority improvements by local people. This participatory process is usually encouraged by trainers well trained in the use of these tools.

The support functions of each toolkit may be summarized as (a) building local initiative for action, (b) focusing on practicable options and (c) promoting serial group work steps for immediate changes. It is noted that the participatory steps using the toolkit correspond to a Plan-Do-Check-Act cycle of risk management as shown in figure 16.

It should be noted that the compilation and use of these basic principles in the training toolkits are expedited by collecting local good examples. Such examples present practical ideas with risk-reducing impacts and are therefore useful.

Our experiences through the inter-country networking indicate the need to provide direct support through training of trainers knowledgeable in the use of these action-oriented toolkits. Recent examples include the application of such toolkits in various interventions for work-related risk management and for job stress reduction. These interventions have led to many

Table 18: Improvements in eight wards applying a stress-reduction toolkit in a health care facility in

Action areas	Examples of improvements done in the first year	No. of actions	No. of wards	Spread to others
Planning work	Work assignments, task review	4	2	2
Working time	Shift systems, securing leaves, breaks	15	4	4
Work methods	Better workstations, labels, carts	26	6	7
Environment	Layout, lighting, railings, nap rooms	19	7	6
Social support	Communication, tags, counselling	8	3	3
Teamwork	Brief meetings, training sessions	13	8	8

improvements in work environment and workstations, work schedules and communication. A typical example is shown in table 18 listing improvements done in a health care facility in Japan where trained facilitators assisted group work of nurses in using a Mental Health Action Checklist. Many of the improvements spread to other sections that learned their benefits. Based on these achievements, the workers of the facility are continuing their participatory interventions in subsequent years.

The use of these group work tools in short-term training courses has led to numerous improvements in the various work settings. Many such improvements are displayed in websites for inter-country work improvement networks. It is encouraging that websites showing low-cost improvements achieved as good OSH practices in industrially developing countries are increasing.

5. Conclusions

In promoting good OSH practices, it is important to facilitate both voluntary initiative of local people and participatory steps taken for immediate changes.

Recent experiences in participatory programs in various work settings provide useful lessons in facilitating the spread of good practices:

- It is useful to build on "local good practices" as an entry point to promote workplace actions;
- The use of locally tailored toolkits is effective for facilitating action-oriented training in planning and implementing good practices; and
- It is essential to develop networks of people advancing good OSH practices for ensuring impacts and sustainability.

It is important to develop national policies and programmes for promoting action-oriented occupational safety and health approaches with a clear focus on locally achieved good practices. Direct support should therefore be strengthened for developing training modules that build on local good practices linked with risk management procedures. This can be accelerated by inter-country networking of positive experiences.

References

International Labour Office. 2004. WISE: Work improvement in small enterprises: Package for trainers (ILO Subregional Office for East Asia, Bangkok).

International Labour Organization Thirteenth Asian Regional Meeting. 2001. Decent work in Asia: ILO activities in the region (ILO, Geneva).

Kawakami, T. and Kogi, K. 2005. "Ergonomics support for local initiative in improving safety and health at work: International Labour Organization experiences in industrially developing countries". Ergonomics 48: 581-590.

Khai, T.T., Kawakami, T. and Kogi, K. 2005. Participatory action oriented training: PAOT programme trainer's manual (Centre for Occupational Health and Environment, Cantho).

Kogi, K. 2002. "Work improvement and occupational safety and health systems: common features and research needs". Industrial Health 40:121-133.

Kogi, K. 2008. "Facilitating participatory steps for planning and implementing low-cost improvements in small workplaces". Applied Ergonomics 39: 475-481.

National Institute of Occupational Safety and Health (Malaysia). 2005. Practical hints for the workplace checklist. National Institute of Occupational Safety and Health (Selangor).

Thurman, J.E., Louzine, A.E. and Kogi, K. 1988. Higher productivity and a better place to work – Practical ideas for owners and managers of small and medium-sized industrial enterprises: Trainers' manual. (International Labour Office, Geneva).

Yoshikawa, T., Kawakami, N., Kogi, K., Tsutsumi, A., Shimazu, M., Nagami, M. and Shimazu, A. 2007. "Development of a mental health action checklist for improving workplace environment as means of job stress prevention". Sangyo Eiseigaku Zasshi 49: 127-142.

Zalk, D.M. 2001. "Grassroots ergonomics: initiating an ergonomics program utilizing participatory techniques". Annals of Occupational Hygiene 45:283-289.

2. Good Occupational Safety and Health Practices in ASEAN: Experiences in ILO Technical Cooperation

By Tsuyoshi Kawakami
Senior Specialist in Occupational Safety and Health
ILO Subreigonal Office for East Asia, Bangkok, Thailand

1. Introduction

Good OSH practices provide useful ideas and examples when developing national OSH policy and programmes. ASEAN countries have promoted practical national policy, referring to existing good OSH practices. The ASEAN Policy Dialogue on National OSH Frameworks conference in Singapore (January 2007) and the ASEAN-OSHNET Workshop on Effective Implementation of National Promotional Frameworks for OSH in Hanoi (May 2008) provided useful forums for sharing good OSH practices within ASEAN and for advancing ASEAN cooperation.

The ILO has been supporting the ASEAN-OSHNET initiatives at both national policy and workplace levels. Important cooperation areas have been: i) developing OSH laws and regulations; ii) strengthening national OSH systems, including labour inspection, occupational injury reporting systems and application of OSH management systems (OSHMS); iii) responding to emerging occupational health problems, such as asbestos and avian and pandemic human influenza; and iv) extending OSH protection into small enterprises, and informal and rural workplaces.

In light of the growing cooperation within the ASEAN-OSHNET network, this paper provides a brief overview of recent OSH initiatives and achievements within ASEAN countries that benefitted from ILO technical cooperation.

2. Use good OSH practices to help develop national OSH programmes

As shown in table 19, ASEAN countries have launched and implemented national OSH programmes referring to ILO Promotional Framework for OSH Convention (No. 187, 2006). These programmes were designed to reflect both common priorities in the region and also special concerns within each country. The common priorities include: i) strengthening OSH legal frameworks; ii) improving compliance with the laws through strategic labour inspection; iii) supporting workplace OSH activities among employers and workers, such as safety and health committees or risk assessments; iv) preparing special programmes for the industries with high accident rates, such as construction or mining; v) reinforcing work-related accidents and disease reporting; and vi) extending OSH protection to small enterprises, informal economy workplaces and the rural sector.

Table 19: Examples of priorities in national OSH programmes and policies in selected ASEAN countries

	Cambodia	Lao PDR
Examples of priorities in national OSH programmes or policy	•Strengthening national OSH systems •Inspection & compliance •OSH activities by workers' organizations •Hazardous occupations •Small enterprises •Rural & informal sectors •Hazardous child labour •Linking OSH to HIV/AIDS prevention	•Tripartite consultation •Government structure at central & provincial levels •Legal frameworks •Inspection •Training & information •Construction •Small enterprises •Agriculture •Transport •OSH management systems •Injury reporting systems
Major laws in OSH	•Labour Law (1997)	•Labour Law (1994)
Key areas in OSH laws, regulations & guidelines	•Inspection •Occupational health services •Work-related welfare facilities (hygienic toilets, safe drinking water, etc.) •Heavy materials handling •Work environment (heat, noise, light)	•Machinery & equipment •Chemicals •Consultation with trade unions or workers' reps. •Light •Noise •Ventilation •Welfare facilities (drinking water, toilets, etc.) •Information & training for workers
	Indonesia	**Malaysia**
Examples of priorities in national OSH programmes or policy	•Coordination & synergy among ministries & central-provincial levels •Harmonizing laws & regulations •Inspection •OSH & business (workplace commitment, high-risk sectors, small enterprises etc.) •OSH competence •Information	•Policy-legislative frameworks •Strategic enforcement •Analysis of accident data •Safety & health culture •Programmes for small enterprises, construction & self-employed •Extending training & information •OSH strategic alliance
Major laws in OSH	•Manpower Act (2003)	•Occupational Safety & Health Act (1994)
Key areas in OSH laws, regulations & guidelines	•Application of OSH management systems •Inspection •OSH committee •Accident reporting •Medical examination •Physical hazards •Chemicals & safety sheets •Mining •Transport •Construction •Agriculture	•Ensuring OSH protection for all workers •Self-regulation •Construction •Classification & labelling of chemicals •Office work •Hygiene technicians & occupational health doctors •Stress & violence •Standing work •Gender •Visual display units

Table 19: Priorities in national OSH programme and policy (continued)

	Philippines	Singapore
Examples of priorities in national OSH programmes or policy	•Capacity building through training & networking •Injury data collection & analysis •Chemicals •Small enterprises & the informal sector •Migrant workers •OSH & productivity •Governance of preventive OSH •Decent work & OSH	•Building strong capacities to manage workplace safety & health •Implementing an effective regulatory framework •Promoting the benefits of workplace safety & health & recognizing best practices •Developing strong partnerships locally & internationally
Major laws in OSH	•Occupational Safety and Health Standards (1978)	•Workplace Safety and Health Act (2006)
Key areas in OSH laws, regulations & guidelines	•Training OSH personnel •OSH committee •Accident & disease notification •Work environment •Hazardous materials •Machinery & equipment •Materials handling •Construction •Occupational health services	•Risk management •Incident reporting •Construction •Ship-building & ship-repair •Asbestos •Machinery & equipment •Medical examination •Noise •Safety officers •Training •Safety committees
	Thailand	**Viet Nam**
Examples of priorities in national OSH programmes or policy	•Legal framework •Enforcement •Government structure •Home-based workers & farmers •Human resource development •Information systems •Research •Preventing accidents & diseases •Promotion & campaign	•Effective state administration •Mining & construction •Agriculture •Small enterprises •Preventing occupational diseases •Information & training •Applying scientific & technology advances
Major laws in OSH	•Labour Protection Act (1998)	•Labour Code (1994)
Key areas in OSH laws, regulations & guidelines	•Machinery & equipment •Chemicals •Electricity •Construction •Medical examination •Work environment (heat, light, noise) •Safety officers •Occupational safety, health & environment committee	•Workers' protection (personal protective equipment, medical examination, first aid, etc.) •Inspection •Agriculture •Women workers •Hazardous occupations •Accident reporting

ASEAN countries have been strengthening their OSH laws and regulations to respond to workplace needs. The trend is to provide a coherent and comprehensive framework for OSH legislation, policies and programmes, although the types of OSH legal frameworks vary among countries. Malaysia and Singapore, for example, enacted the Occupational Safety and Health Act (1994) and Workplace Safety and Health Act (2006), respectively, and established a strong OSH legislative framework. The two countries are taking progressive measures to cover all workers. Indonesia, Philippines, Thailand and Viet Nam have provided

specific and detailed OSH provisions as an integral part of their priority labour policies, such as worker protection and manpower development. Cambodia and Lao PDR have fundamental OSH provisions in their labour laws and are developing more detailed OSH provisions for stronger worker protection, drawing from good OSH practices in successful provinces or enterprises.

3. Responding to national OSH priorities

There are emerging OSH issues and national priorities in the region that ASEAN countries and the ILO have been working together to address, as the following highlights.

Labour inspection

Labour inspection plays a fundamental role in enterprise compliance with laws and regulations on occupational safety and health. Thus, there is an acute need to strengthen support measures to labour inspectors in ASEAN in terms of capacity building, strategic planning and development of practical inspection tools. Intra-ASEAN cooperation has been promoted to strengthen labour inspection. For example, Singapore has organized inspection capacity-building training workshops in Cambodia and Lao PDR.

The importance of inspection is clear from the case of Thailand in which inspection results in 2005 revealed that around 20–25 per cent of enterprises in manufacturing, mining/quarrying, electricity, gas/water and construction did not comply with legal OSH requirements and required action for improvement. This situation calls for even stronger compliance systems, which should include advocacy, information and training. Labour inspectors continue to monitor the progress and provide advisory support to workplaces.

Occupational injury reporting systems

Strengthening occupational injury- and disease-reporting systems and expanding coverage will generate a better understanding of the real magnitude of workplace safety and health problems and help establish responsive national policies for improvement. Among ASEAN countries, different trends have emerged over the past decade in regards to the incidence of occupational injuries and fatalities. Following a sharp rise in reported occupational injuries and fatalities in the 1980s, which occurred in step with rapid industrialization, Malaysia and Thailand began experiencing a decreasing trend in occupational injuries during the 1990s. On the other hand, Indonesia and Viet Nam now see a rapid increase in reported occupational injuries and fatalities associated with their more recent industrial development.

It is important to expand the reporting system coverage to smaller workplaces and prepare easy-to-use reporting formats for them. Cooperation and exchanging experiences within ASEAN countries are very much required.

Asbestos

Health hazards caused by asbestos are an increasing concern in the ASEAN region. ILO and the World Health Organization have been jointly supporting national action in Thailand and Viet Nam to eliminate the asbestos-related health hazards. The Ministry of Public Health in Thailand with ILO assistance, surveyed companies to identify those that have used asbestos and require information on asbestos-free materials. Both governments also have provided technical advice on how to replace asbestos-material with asbestos-free materials.

Promoting public awareness on asbestos-related health hazards, strengthening health surveillance and establishing concerted national policies are equally important risk-management activities. We need to work together to develop a consolidated ASEAN policy towards the elimination of asbestos and promoting technical cooperation in doing so.

Migrant workers

The migration of the labour force throughout ASEAN is on the increase. In response, efforts to provide adequate occupational health services for migrant workers also are increasing. The Ministry of Public Health of

Thailand, for example, has piloted a project to provide basic occupational health services to all community workplaces. Migrant workers can be covered along with Thai workers from small enterprises, informal economy workplaces and rural farms in the same community. Health personnel in primary care units located in communities have received OSH training and now function as basic occupational health service (BOHS) providers. The BOHS services include practical OSH risk-assessment, consultation and training for all people in the community.

Protecting workers and businesses from pandemic human influenza

Enterprises need to protect their employees, customers and businesses from the current outbreak of human influenza (H1N1). The Ministry of Labour of Thailand and the ILO, for example, have worked together with other government agencies, workers and employers to strengthen preventive actions in workplaces. Our collaborative activities have: i) assisted small and medium enterprises (SMEs) in protecting the health of their employees and their businesses from the pandemic human influenza and ii) promoted the national policy to support SMEs.

The collaborative activity confirmed a high awareness among workers and employers of pandemic human influenza issues and also their need for protection in the workplace. In response, the Thai-ILO joint activity developed and widely applied an action checklist (table 20) that can help employers' and workers' identify ways to reduce their infection risks and protect their businesses should the pandemic intensify. At the national policy level, the three ministries of labour, health and agriculture have worked together to forge a consolidated collaborative response. The ILO in cooperation with tripartite partners will continue its efforts to provide practical influenza control measures to more grassroots workplaces.

4. Extending OSH protection into small enterprises and informal and rural workplaces

Many countries in ASEAN have been extending practical OSH protection into small enterprises, informal economy workplaces and the rural sector. The Cambodian Government, for example, has provided participatory, action-oriented training for small enterprises and extended support for home-based workers and farmers. Practical tools such as an

Table 20: Checklist for reducing risk to pandemic influenza

Information collection & sharing: 1. Collecting updated information 2. Cooperation with business partners 3. Discussion with workers
Company plans: 4. Management commitment 5. Organizing a committee 6. Designing a preparedness plan 7. Support measures for workers 8. Learning from preparedness plans of other companies
Minimizing human-to-human contact: 9. Distance between workstations 10. One-way use of staircases 11. Working at home 12. Use of telephone or Internet meetings 13. Cleaning items that many people touch 14. Safe transportation means
Personal hygiene habits: 15. Washing hands 16. Wearing a mask 17. Coughing etiquette 18. Elbow sneezing 19. Worker training 20. Sufficient washing sinks
Supporting sick workers: 21. Keep communicating to sick employees 22. Company support measures for sick workers 23. Advice to workers for preparing for a pandemic

Source: Kawakami ,T. 2008. Protecting your health and business from pandemic human influenza – Action manual for small enterprises (ILO Subregional Office for East Asia, Bangkok).

action checklist (figure 17) or photo sheets showing good OSH practices were developed and used in the training. Representatives of government, workers' and employers' organizations and NGOs were instructed in basic OSH training. These local OSH trainers have since used their networks to reach a variety of informal economy workplaces, such as home-based operations, small construction sites and self-sustained farms. The Government has continued to play an important facilitating role and has frequently organized useful forums for the trainers to meet together to exchange experiences.

Rural villagers, some without electricity, have participated in the OSH training and have implemented a number of improvements for their safety, health and productivity. With national support and strengthened networks, these practical work-improvement programmes are gradually expanding their reach into more workplaces in the informal economy.

Through the Work Improvement in Neighbourhood Development (WIND) programme, farmer volunteer trainers use participatory training methods to train their neighbouring farmers in simple and low-cost OSH improvement methods.

The Vietnamese Government has recognized the WIND farmer volunteer system and established practical support systems at the national and provincial levels.

Figure 17: Part of the Work Improvement for Safe Home (WISH) action checklist, with good practice illustrations

Action checklist

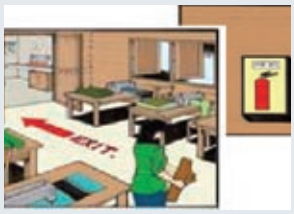
21. Increase natural ventilation by having more openings, windows or open doorways.

Do you propose action ?
☐ No ☐ Yes ☐ Priority
Remarks:.....
.....

22. Provide adequate clothes and personal protective equipment, such as glasses, shoes and gloves.

Do you propose action ?
☐ No ☐ Yes ☐ Priority
Remarks:.....
.....

23. Provide at least two unobstructed exits from rooms and enough fire extinguishers.



Do you propose action ?
☐ No ☐ Yes ☐ Priority
Remarks:.....
.....

Welfare facilities and work organization

24. Provide an adequate supply of safe drinking water in all workplaces.

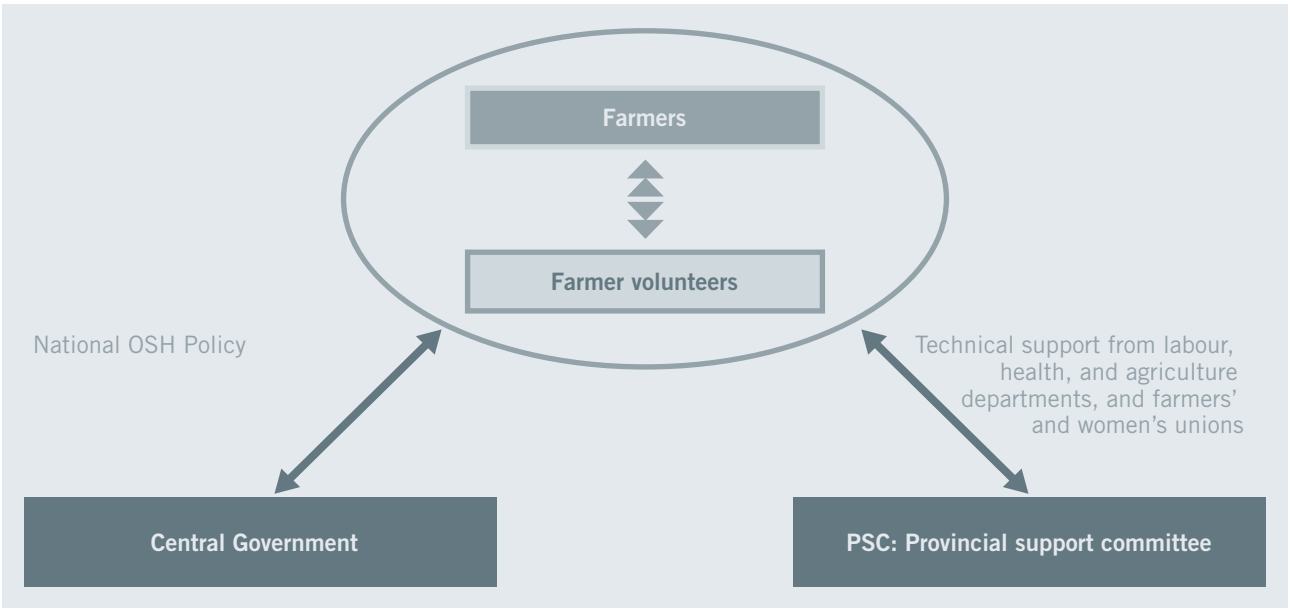
Do you propose action ?
☐ No ☐ Yes ☐ Priority
Remarks:.....
.....

Provincial governments provide technical support to farmer volunteers (figure 18). In 2006, the central Government incorporated the WIND farmer volunteer system into the nation's first OSH programme as a practical measure to realize OSH in agriculture and has been extending the system into new provinces, with support from the national budget.

5. Conclusions

ASEAN countries have focused on existing good OSH practices and increasingly applied them as workable measures to support workers and employers. In parallel, pilot activities and projects have produced workable examples to strengthen national OSH systems and created substantial impacts on the national OSH policy and programmes. It is hoped that ASEAN countries continue active exchanges of good OSH practices to maximize the impact and synergy. Sharing practical OSH experiences in ASEAN with other regions, such as South Asian and African countries, should also be in the scope of future ASEAN activities.

Figure 18: National OSH systems support WIND farmer volunteers in Viet Nam to extend OSH protection to farmers



References

ILO Regional Office for Asia and the Pacific. 2007. "Occupational safety and health" in Labour and social trends in ASEAN 2007: Integration, challenges, opportunities. (Bangkok).

Kawakami ,T. 2008. Protecting your health and business from pandemic human influenza – Action manual for small enterprises (ILO Subregional Office for East Asia, Bangkok).

Kawakami, T., Van, V.N., Theu, N.V., Khai, T.T. and Kogi, K. 2008. Participatory support to farmers in improving safety and health at work: Building WIND farmer volunteer networks in Viet Nam. Industrial Health 46: 455–462.

Kogi, K. 2006. Low-cost risk reduction strategy for small workplaces: How can we spread good practices ?. La Medicina del Lavoro, 97, 303-311.

Leng Tong., Yi, Kannitha. and Chhay Vanna. 2007. Participatory approaches to improving safety and health of farmers in Cambodia – Practical application of the WIND training programme. Asian-Pacific Newsletter on Occupational Health and Safety 14. No. 3, 56–57 pages

Siriruttanapruk, S., Wada, K. and Kawakami, T. 2009. Promoting occupational health services for workers in the informal economy by primary care units, ILO Asia-Pacific Working Paper Series (International Labour Office).

GOOD OCCUPATIONAL SAFETY AND HEALTH PRACTICES 2008/2009

This publication is a compilation of the many good OSH practices in terms of national OSH frameworks, enforcement, outreach, training and research developed in recent years in ASEAN (the Association of Southeast Asian Nations) member countries. These examples were first presented during the ASEAN-OSHNET Workshop on Good OSH Practices in Singapore in February 2009. The ASEAN-OSHNET functions to help member countries achieve better OSH performance. Under the ASEAN-OSHNET Plan of Action, adopted in 2007, all member countries aim to develop a national OSH profile and implement national OSH strategies or programmes by 2012.

Good-practice approaches have been playing a greater role in implementing the raising of occupational safety and health standards at both the national policy and workplace levels. Adopting successful approaches strengthens the efforts of government, workers and employers in ASEAN countries. The efforts and actions described here should also be useful at the international level. This publication is a milestone in the ongoing process of strengthening OSH practices and also an important tool for greater network collaboration that can assist ASEAN countries.

The ASEAN Occupational Safety and Health Network
Ministry of Labour and Social Welfare, Lao PDR
P.O. Box 347, Pangkham Road, Vientiane Capital, Lao PDR

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