

For People, Life and Future
Ministry of Health, Labour and Welfare

JAPAN for ASIA
Occupational Safety and Health

The rapid economic growth of Japan has been supported by workers. Meanwhile, many of the experienced workers who supported the economic growth and young people who were about to support development in the future have lost their lives due to various occupational accidents at construction sites and factories, and occupational diseases caused by asbestos, chemical substances including bladder cancer. Based on the experience and the knowledge that Japan has learned from the past, we would like to contribute to the sound economic development in developing countries by considering occupational safety and health, taking necessary actions and practicing measures together with the people in the country. We believe such cooperation is an important contribution of Japan in the international society, which promotes human security and development of human resources.

History of Occupational Safety and Health in Japan (main items)

- 1950's
- Along with post-war reconstruction, rash of silicosis in metal/coal mines, pneumoconiosis in manufacturing industry
→ Law on Special Protection Measures concerning Silicosis, etc. (1955), Pneumoconiosis Law (1960)
 - Response to radiation hazards by nuclear power development and non-destructive inspection technology
→ Regulation on Prevention of Ionizing Radiation Hazards (1959)
 - Onset of aplastic anemia due to benzene contained rubber glue at sandal factory
→ Regulation on Prevention of Organic Solvent Intoxication (1960)
 - Necessity of engineering control to prevent pollution of harmful substances
→ Standards for design of local exhaust ventilation system (1960)
 - The number of fatalities of occupational accidents has increased rapidly with the rapid economic growth
→ Start of national five-year plan to prevent occupational accidents and diseases (1958)
- 1960's
- Need for voluntary occupational accident prevention activities by private industry groups
→ Law on Organizations for the Prevention of Occupational Accidents (1964)
→ Start of Zero-Accident-Campaigns (1973)
 - Frequent occurrence of large scale explosion in coal mine- Many casualties due to carbon monoxide intoxication
→ Law on Temporary Measures concerning Carbon Monoxide Intoxication Due to Coal Mine Disasters (1967)
 - Tendonitis of key puncher of computer and register, vibration syndrome caused by chain saw
→ Guidelines for prevention of musculoskeletal disorders (from the 1960's)
- 1970's
- Increased concern for chemical substances causing occupational cancer as well as environmental issue such as air pollution and water pollution, needs for health maintenance of workers who work with chemical substances
→ Regulation on Prevention of Disorders caused by Specific Chemical Substances (1971)
- 1980's ~
- Necessity to cope with stress in VDT work with the common use of computers
→ Guidelines for Occupational Health Management in VDT Work (1985)
 - Responding to the aging population of the work force
→ Total Health Promotion Plan (1988)
- 1990's ~
- Responding to complicated and sophisticated stress society
→ Guidelines for Promotion of Mental Health at Work (2000)
→ Compulsory Stress Check System in Enterprise (2015)

Technical Cooperation on Occupational Safety and Health

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2 Cooperation Scheme

Introduction of types of cooperation, advantages/disadvantages, request procedure, expenses and contents

3 Related Organizations and Their Specialized Areas

<Managing organization>

Japan International Cooperation Agency

Core organization to manage intergovernmental cooperation

<Implementing organizations>

Japan Industrial Safety and Health Association

An organization aims at preventing occupational accidents and diseases, established by cooperation of companies in Japan

Conducting a wide range of activities from securing safety in manufacturing industry to promotion of workers' health

Japan Construction Occupational Safety and Health Association

An organization established by cooperation of the companies in construction industry, aims at preventing occupational accidents

Japan Organization of Occupational Health and Safety

An organization treats workers with work-related injuries and diseases, and supports them in returning to work
Conducting research to prevent occupational accidents and diseases, assessment of hazardous chemical substances

Ministry of Health, Labour and Welfare

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Labour Standards Bureau

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University of Occupational and Environmental Health , Japan

A medical university aims at fostering human resources to promote occupational health, and conducts research to pursue healthy working environment and working style

1 Areas of Technical Cooperation

Occupational Safety & Health



Improvement of government policy and its implementation

We help developing occupational safety and health related laws, regulations and guidelines, and improving administrative procedure. We can provide concrete advice and solutions through investigating causes and preventing reoccurrences of occupational accidents as well as providing training programs or workshops for occupational safety and health inspectors.

Safety measures at construction sites

We provide curriculum and support trainings to train and educate workers at construction sites for their occupational safety and health. We also provide advice how to form organizations to promote occupational safety and health at construction sites and how to operate them.

Improvement of collection and analysis method of safety and health information

We help establishing occupational safety and health center that conducts survey, research, information collection and PR, and provides technical services and trainings.

Human resource development in safety and health

We establish a model course of occupational safety and health for workers, employers, experts and instructors in order to promote and expand occupational safety and health training and education.

We develop human resources in developing countries based on their needs by sharing various techniques and knowledge of which Japan has experienced through the economic growth.

For occupational respiratory diseases

We can transfer methods of management, diagnosis and treatment of occupational respiratory diseases caused by dust and asbestos at the construction sites and mines. Technology transfer to prevent occupational respiratory diseases, not only introduction of how to use personal protective equipment but also engineering control such as working environment assessment and improvement by local exhaust ventilation system.

For occupational intoxication

A number of new chemical substances are under development. There are quite a few substances in existence, which are known to have toxicity. We share our techniques of management of working environment, work, and health as well as risk assessment of chemical substances in order to prevent occupational health disorders.

For mental health issues

When there are more office workers, new approaches are needed. We provide trainings on mental health issues for workers who work long hours and are under stress.

Supporting voluntary activities

Government agencies are not the only ones who promote occupational safety and health. Industries and companies in each country are required to commit their voluntary actions rather than only setting minimum regulations of occupational safety and health. We support voluntary activities based on Japan's experience.

Promotion of occupational safety and health at work

Communication is the key between workers, especially at construction sites or factories in Japan. For instance, the person in charge of a construction site and his/her colleagues share the possible hazards of their work on a daily basis, and suggest ideas for work improvement, this is called "KAIZEN" (improvement) activity. By introducing such bottom-up activities developed as Zero-Accident Campaign or "KYT" (hazard prediction training), we support practical training by teaching how to implement such activities at work.

2 Cooperation Scheme

1 Intergovernmental cooperation and others

There are two types of technical cooperation:

- ① Official Development Assistance (“ODA”) based on the agreement of the governments
- ② Cooperation to the government, public sectors, private sectors in the requesting country supported by Japanese organizations related to occupational safety and health

On cooperation by ODA, not only engineering measures, diagnosis or treatment method in the medical field, transfer of know-how including introducing legal system and implementation methods are available. Financial support by the Japanese government is also available. ODA sounds reasonable to implement the cooperation program, but ODA based cooperation is depending on the agreement between the Japanese government and requesting country.

On cooperation programs supported by Japanese occupational safety and health organizations, practical support at work sites by Japanese companies or advanced technical assistance by Japanese researchers are available. This would be a quick way to start programs since intergovernmental consultation is not necessary. Although financial burden might be bigger for the developing countries than ODA.

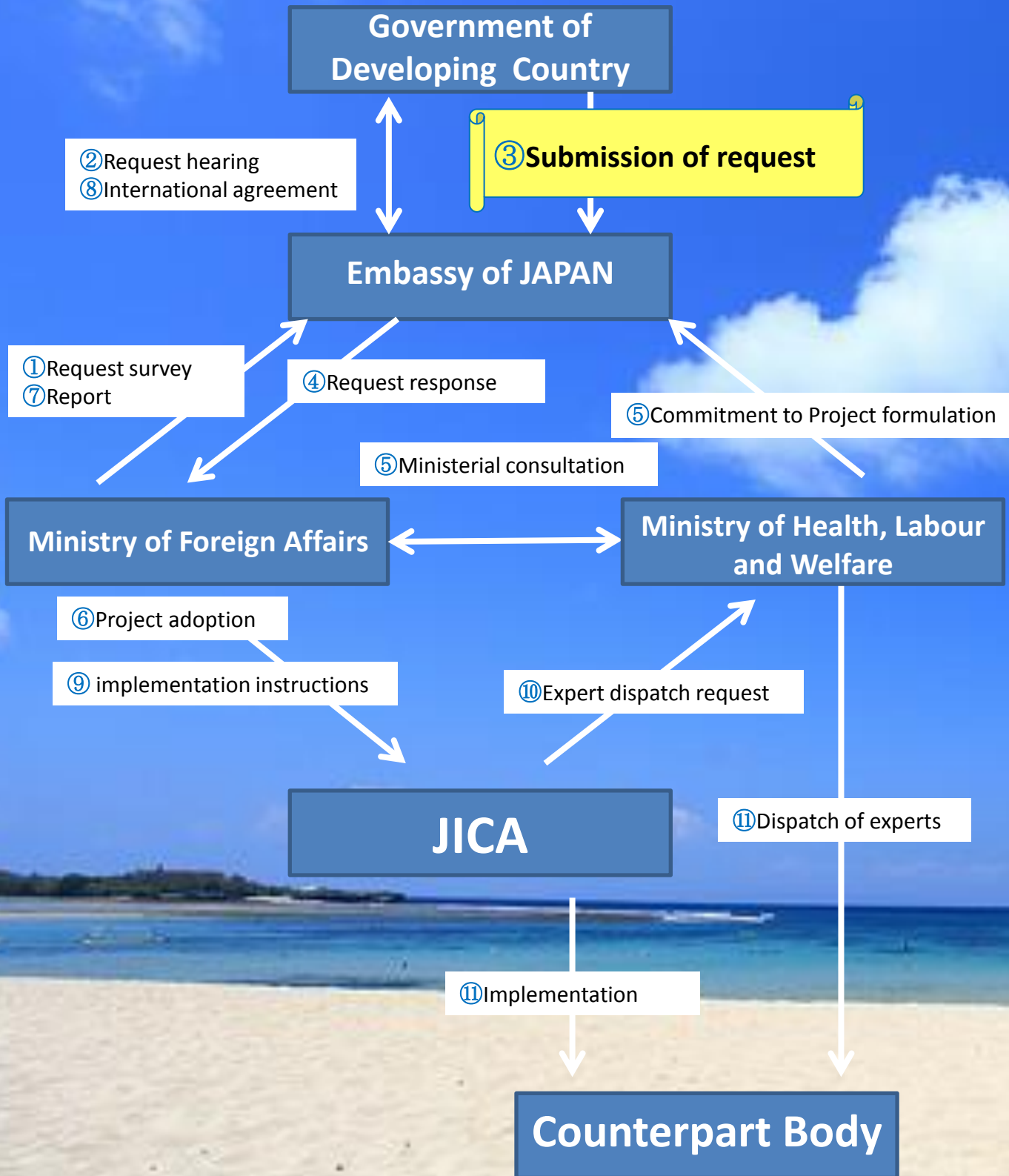
Considering above points, you need to determine the contents of support and the organization from which you should request cooperation.

2 Request of cooperation and financial arrangement

For the ODA, requesting government have to submit the official request to the Japanese government through Japanese embassy in the country. (See flow chart in the next page) The costs will be beard by both governments.

On cooperation program supported by Japanese occupational safety and health organizations, requesting body has to contact directly to the target organization without going through Japanese embassy or JICA office. In principle, the requesting body is expected to bear all the costs.

Flow of Project Formulation for International Cooperation



3 Cooperation Scheme

① ODA

There are three types of technical cooperation in ODA: dispatching Japanese experts, trainings in Japan for personnel in the requesting countries, and providing necessary equipment for technical cooperation. We implement technical cooperation in the most suitable form according to the circumstances of each country. We sometimes combine all three types and call it as “technical cooperation project”.

(Dispatch of experts)

We dispatch experts from Japan to target countries. The experts provide advice based on the local environments/needs.

(Acceptance of trainees)

We accept trainees from the target country. By conducting training in Japan with well-equipped facilities and the environment, you can gain the latest information and knowledge. In addition, you can visit institutions such as National Institute of Occupational Safety and Health, Occupational Health Hospitals, Japan Bioassay Research Center, University of Occupational and Environmental Health etc. which are the key institutions in Occupational Safety and Health in Japan.

(Equipment supply)

We provide necessary equipment for technology transfer. The equipment includes measurement/analysis equipment for hazardous substances, personal protective equipment including respirators, safety belts and helmets.

(Project sites and personnel)

Countries requesting technical cooperation need to prepare facilities to implement projects and personnel to accept technology transfer.

(Example)

Period of cooperation: about 5 years

Contents of cooperation:

- Dispatch of experts
 - Long term experts (2-3 yrs/person, about 2-5 persons)
 - Short term experts (several months/person, as appropriate)
- Acceptance of trainees Every year
- Supply of equipment Tens of millions yen (depends on the project)

② Cooperation supported by health and safety related organizations in Japan

The scheme is almost the same as ODA.

3 Organizations

ASEAN-OSHNET
COORDINATING
BOARD MEETING

2014
Mandarin, Singapore

ASEAN-OSHNET
ASIAN OCCUPATIONAL SAFETY & HEALTH NETWORK



Cooperating Organizations and Specialized Fields

【Japan International Cooperation Agency】

— Core organization of ODA —

【Japan Industrial Safety and Health Association】

— Promotion of voluntary activities in the company —

【Japan Construction Occupational Safety and Health Association】

— Specialist of occupational safety and health in construction industry —

【Japan Organization of Occupational Health and Safety】

— Operation of the National Institute of Occupational Safety and Health (JNIOSH), Rosai Hospitals and Japan Bioassay Research Center —

【University of Occupational and Environmental Health, Japan】

— Unique medical university to foster and train occupational health physicians and professionals —





Core Organization of Intergovernmental Cooperation

The Japan International Cooperation Agency (JICA), as an executing agency that manages Japan's Official Development Assistance (ODA) has a vision "To trust the bright future and pursue diverse possibilities, connect the world with trust". Under the vision, from the business form of technical cooperation, loan aid (ODA loan), grant aid cooperation, JICA carries out international cooperation using methods of considering the regional and task-oriented approaches of each developing country.

In response to the various challenges that developing countries face, JICA takes advantages of the technologies and experiences that Japan has cultivated so far in terms of human security, and supports fostering human resources with emphasizes on human rights and safety, and high quality cooperation in economic and social infrastructure development etc.

Initiatives in the field of occupational health and safety contribute to the global agenda “Sustainable Development Target (SDGs) Goal 8.8: Protecting the right of all workers and promoting a safe and secure work environment”. We have been working on human resource development to secure the safety and health of workers in developing countries.



In many countries in the transition period from low-income countries to middle-income countries, the need for safety and health in the work environment is rapidly rising as productivity improves. JICA has been implementing technical cooperation in occupational safety and health fields in more than 10 countries, mainly in Southeast Asia and South America since the 1980s.

The occupational safety culture in Japan is to realize by aligning the policies and the safety awareness of the workers. This essence is handed down to the people in developing countries by training and education through technical cooperation, and the new safety culture is taking root in each country.

In addition, a safety reinforcement campaign has been implemented in the infrastructure development and construction project. We aim to eradicate the number of accidents by training, education and raising awareness on safety management to the people in charge, and by carrying out on-site patrols.

Consultation of ODA

Embassy of Japan in your country will be the reception desk for international cooperation between governments. You can also consult the JICA office located in your country about cooperation plans and contents. JICA office is able to give advice not only to the project management of technical cooperation but also to form cooperative projects based on the past cooperation experience.

Examples of technical cooperation through JICA

| No. | Title | Activities |
|-----|--|---|
| 1 | The Occupational Safety and Health Center Project in the Philippines: OSHC (1988~1995) | Supported the establishment and operation of Occupational Safety and Health Center, which provides technical services, training, research, information dissemination on occupational health and safety. |
| 2 | The Project for the Prevention of Occupational Diseases in the Republic of Korea (1992~1997) | For the purpose of strengthening the functions of Research Institute of Industrial Health of the Korea Industrial Safety Corporation and strengthening functions as a health management agency at the Korea Occupational Health Association and Soonchunhyang University, supported 1) occupational health in general 2) working environment management 3) personal protective equipment test 4) hazard investigation 5) health management 6) the improvement of occupational health research infrastructure. |
| 3 | Mini-Project-Type Technical Cooperation for Occupational Health in Brazil (1995-1998) | In order to establish comprehensive research and guidance system related to occupational health, we transferred technology of 1) working environment measurement 2) health examination method 3) working environment improvement method. |
| 4 | The Project to Enhance Education and Training of Industrial Safety and Health in Indonesia (1995~2000) | To strengthen and expand safety and health training and education for workers and employers, we assisted the development and improvement of training courses for instructors, safety and health experts, employers and workers. |
| 5 | The Project on Strengthening of the National Institute for the Improvement of Working Conditions and Environment in Thailand (1997~2002) | Supported to the Institute; 1) improvement of technical aspects and improvement of research and analysis ability, 2) improvement of training courses for inspectors, 3) improvement of training course for occupational safety and health officers, etc, 4)Improving the quality of the center's safety and health public relations. |
| 6 | The Project for the Capacity Building of National Institute of Occupational Safety and Health in Malaysia (2000~2005) | Supported 1)Improvement of working environment management technology 2) prevention of occupational diseases, 3) development of safety and health human resource development programs, 4) improvement of safety and health information collection, analysis and publication functions at the National Institute of Occupational Safety and Health (NIOSH) |
| 7 | The Project for the Enhancement of Occupational Safety and Health Management in Peru (2004~2006) | Training on occupational safety issues unique to the construction industry and knowledge / techniques relating to the measures aimed at improving the policy formulation capacity of government officials involved in occupational safety management and improving the technical capacity of occupational safety supervisor. |
| 8 | Project on Scientific and Technological Capacity Building for Work Safety in China (2006~2010) | With respect to the three priority issues; 1) dangerous goods safety management, 2) mechanical risk management and 3) occupational hygiene management, we supported to strengthen the capacity of the China Academy of Safety Science and Technology, and improve safety production management in the two model districts of Ningbo city and Benxi city. |
| 9 | The Project for Improving Occupational Safety and Health Administration of the Department of Occupational Safety and Health in Malaysia (2007-2012) | Improvement of methods and procedures of administration on occupational safety and health, improvement of training programs for safety and health inspectors, and holding workshops for companies at the Department of Occupational Safety and Health (DOSH). |
| 10 | Project on Capacity Building for Occupational Health in China (2011~2016) | In order to strengthen measures against occupational diseases, we assisted supervisory management related to occupational diseases, technical services, improvement of information collection and analysis standards, improvement of awareness of occupational health and management skills of companies and workers. |
| 11 | Project on Strengthening the Capacity for Occupational Safety and Health in Iraq (2016~2020) | As strengthening functions related to occupational safety and health at the National Center for Occupational Health and Safety (NCOHS) and related organizations in Iraq, we supported improvement of occupational accident recording and reporting system, and occupational safety and health risk management system, and capacity building of occupational safety and health managers. |
| 12 | Project for Capacity Development of Vocational Training Corporation in the Field of Occupational Safety and Health in Jordan (2017~2021) | We support to the Jordan Vocational Training Center to strengthen training functions in compliance with international standards for public corporations, strengthen functions to provide survey and technical services, strengthen functions to promote dissemination, and establish six regional centers. |

Japan Industrial Safety and Health Association



1 Japan Industrial Safety and Health Association (JISHA)

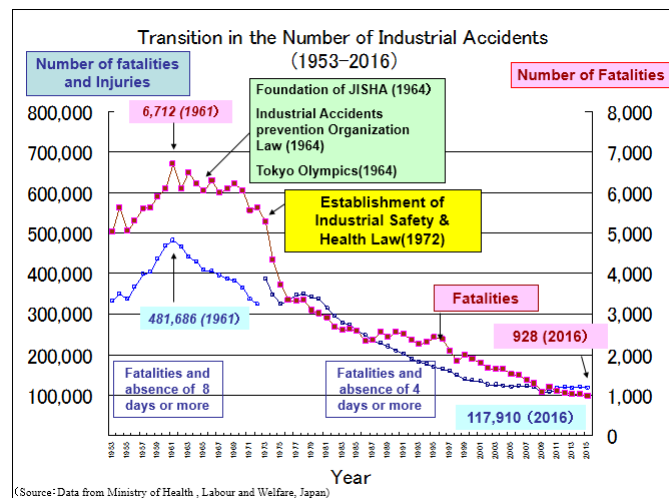
JISHA aims to improve occupational safety and health through promotion of voluntary occupational accident prevention activities by employers and to eradicate occupational accidents and diseases in accordance with the Industrial Accident Prevention Organization Act. It is a corporation for public interest purpose established in 1964.

JISHA promote occupational safety and health at companies by holding national occupational safety and health convention and other activities to prevent accidents such as Zero-Accident Campaign. JISHA provides various services from the education of management of chemical substances, mental health care and health promotion to publishing books concerning occupational safety and health as well as measuring working environments.

2 Areas of cooperation

(1) Practical safety and health activities at work sites

Even in Japan, many occupational accidents have occurred and many workers lost their lives or were injured. In order to improve this kind of situation, activities such as Zero-Accident Campaign, KYT (Hazard Prediction Training) activities and risk assessment were started by industries and companies as their voluntary efforts. Due to the accumulation of such activities, occupational accidents in Japan have drastically decreased. JISHA supports human resource development by providing training courses to introduce these activities at work sites.



① Zero-Accident Campaign

The campaign is to promote practical activities in the company with three principles; 1) "zero-accidents" which requires the fight against all of hazards at workplace, 2)"pre-emptive action" which requires detection, comprehension and resolution of all hazards before accident happen, and 3)"participation" which top management, supervisors, staff members, and rank-and file workers cooperate and act to resolve problems in their respective positions through self-initiated endeavors.



② KYT* (Hazard Prediction Training)

*KYT(K: kiken(hazard), Y: yochi(prediction), T:training)

Using illustration sheets depicting the workplace and work situation, or while supervising or demonstrating work in real situation on site, discuss in small groups "hazardous factors" (or unsafe behaviors or unsafe conditions that may cause occupational accidents) in the workplace and in work conditions. Then, think about, and understand (or ask yourself about) the "phenomenon" (type of accident) caused by such factors. This is practical training to decide points of danger and action targets, pointing to them, chanting them, checking with pointing designation.

Find the potential hazards in this work!



Situation
You are just sandpapering for preparation of painting door of external escape stairs.

③ Risk assessment

It is an evaluation and improvement method to prevent occupational accidents beforehand by finding hazards voluntarily at the work site and taking measures.

Risk Estimation

| Possibility | | Severity | | |
|-----------------------|-------------------|----------------------|------------|-------------|
| | | Crucial/Serious X | Light △ | Slight ○ |
| Possibility of Injury | Frequently X | III | III | II |
| | Occasionally △ | III | II | I |
| | Rarely ○ | II | I | I |

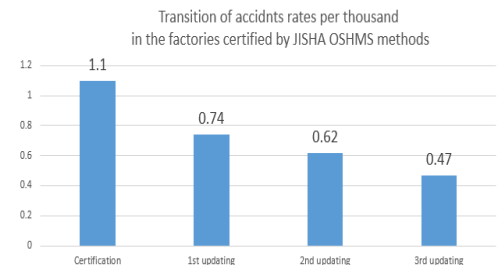
Specifically, it is done in the flow of "identifying hazards" → "estimating the degree of specified risk" → "prioritizing countermeasures, determining measures content" → "implementing countermeasures".

Practical training will be conducted on how to identify the hazards and estimate those risks (numerical evaluation, matrix evaluation) etc.

(2) Support for introduction of safety and health management system

International standard for occupational safety and health management system, ISO 45001, was published in March, 2018. As a representative of the Japanese government, JISHA was actively involved in its publication.

JISHA has been implementing original JISHA certification system on OSHMS which is effective for supporting human resource development and practical reduction of occupational accidents based on ILO's guidelines on Occupational Safety and Health Management System.



JISHA OSHMS Standards Certification: JISHA's original OSHMS certification, which the Japanese industry has cultivated, including improvement suggestion by on-site bottom-up proposal and all-member participation type safety and health activities included in the requirements. It is consistent with many parts of ISO 45001 requirements.

3 JISHA's International Cooperation

(1) ODA

Based on the cooperation policy of Japanese government, JISHA cooperates through JICA in the field of occupational safety and health including support of occupational safety and health organizations in many countries and implementation of trainings in Japan on occupational safety and health for government officials.

(2) JISHA's voluntary project etc. (Cost Charged)

In addition to cooperation mentioned above, JISHA carries out the following training and technical guidance in response to requests from government agencies, companies etc. in other countries.

① Asia Occupational Safety and Health SAKURA Project

A project to incorporate knowhow and experiences of which Japanese companies have established in the field of occupational safety and health into the activities to raise safety awareness of local employees and prevent occupational accidents and diseases. Combining trainings in Japan and advice and guidance on safety at Japanese companies in the destination, we convey knowhow and experience to prevent occupational accidents and diseases.

Cooperation achievement: Thailand and Indonesia in 2016, Vietnam in 2017

② JISHA Partnership Training

JISHA used to invite occupational safety and health staff of organizations and companies in developing countries to Japan for practical training based on JISHA's experiences of technical cooperation. (1 team/year from 2008 to 2015)

Now JISHA dispatches its experts to developing countries for the practical training. (1 team/year from 2016, to Thailand in 2016, to India in 2017)

③ Training and Technical Guidance upon Requests from Overseas

Based on the knowhow and experiences of occupational safety and health fields that Japanese companies have built up, we support Zero-Accident Campaign, implementation system of KYT (Hazard Prediction Training), human resource development and so on.



We have established a system that can respond promptly to get certification of the international standard on occupational safety and health management system (ISO 45001), and we also provide training for the introduction of the standard.

We can also provide technical guidance on measurement of harmful substances in the working environment, and analysis of asbestos and other substances.

Japan Construction Occupational Safety and Health Association



1 Japan Construction Occupational Safety and Health Association (JCOSHA)

JCOSHA was established in 1964 based on the “Industrial Accident Prevention Organization Act”, and was established for the purpose of preventing occupational accidents in the construction industry.

The members of JCOSHA are the construction companies and organizations consists of construction companies. The headquarters and the prefectural branch offices promote activities to prevent occupational accidents, which are carried out mostly by the members.

JCOSHA provides industrial accident prevention regulations, assistance of technical issues, dissemination of COHSMS, occupational safety and health education for workers and collecting and providing information on occupational safety and health.

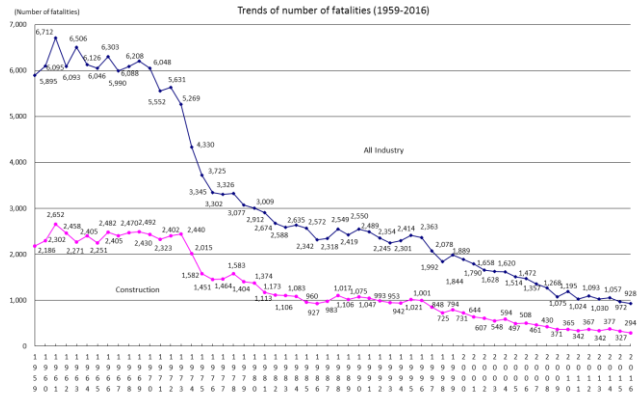


*Construction Occupational Health and Safety Management System = COHSMS

2 Areas of cooperation

(1) Practical safety and health activities at construction sites

The number of occupational fatal accidents in the construction industry in Japan have steadily declined over the years due to long standing efforts of stakeholders. It decreased from 2,652 death in the peak in 1961 to 294, which is one-ninth of the peak. Since its establishment, JCOSHA expanded programs of accident prevention in the construction industry, and contributed to the reduction of the number of occupational accidents.



① Campaign to eliminate three major accidents

Focusing on three major accidents in the construction industry, “falling from heights”, “accidents caused by construction machinery and cranes” and “collapse”, we put efforts to ensure preventive measures in order to eliminate these types of occupational accidents.

② Safety Work Cycle Activity

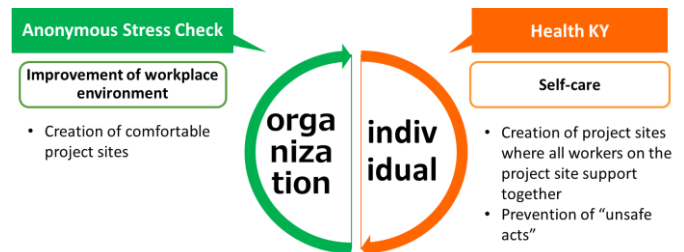
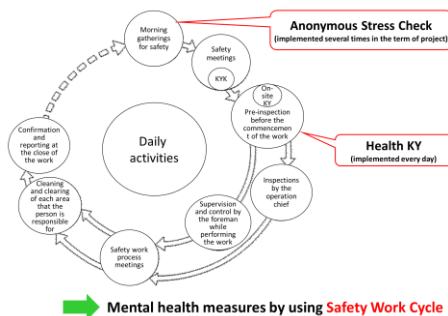
JCOSHA implements safety work cycle activity which intends to make the on-site occupational safety and health activities custom by introducing ①daily implementation items, ②weekly implementation items, ③monthly implementation items, ④occasional activities as a cycle.

③ Risk assessment

Risk assessment is to identify hazards that could cause occupational accidents at construction sites at the stage of planning, estimate the severity and possibility of the possible accident, and finally evaluate as its risk. It is a tool to prevent occupational accidents in advance by applying measures which could improve and promote intrinsic safety.

④ Mental health measures in the construction industry

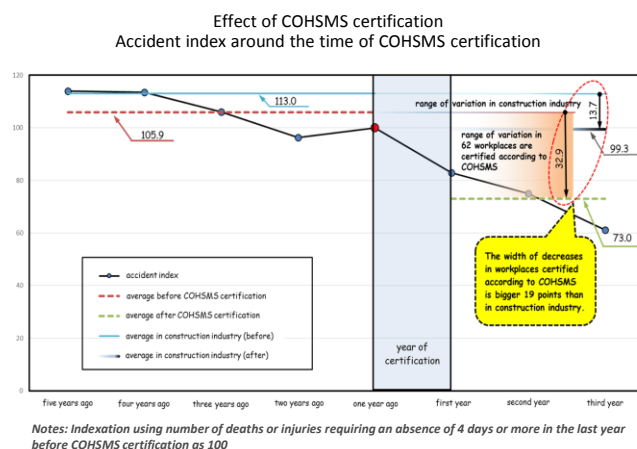
JCOSHA implements original mental health program that specifically pays attention to the characteristics of construction industry (e.g. fix-term projects, mobility of workers, multiple contractors). JCOSHA adopted “JCOSHA version of health KY (Kiken Yochi, hazard prediction) and anonymous stress check” in the safety work cycle. ① In health KY, the foreman at each team questions the colleagues in the team about the following three points; level of sleep, appetite, and physical condition. The foreman reports to the director of the site and take actions if necessary. ② Anonymous stress check is implemented in the morning meeting where all the workers are present, and take actions if necessary.



(2) Development of Construction Occupational Health and Safety

Management System (COHSMS)

JCOSHA developed “COHSMS guideline” corresponding to the characteristics of the construction industry to implement effective occupational safety and health management system at construction workplace, and spread the idea and operation based on the national guidelines. The effect on the companies which introduced COHSMS guideline, the number of occupational accidents is less at the companies promoting COHSMS guideline. COHSMS guideline is one of the guidelines based on the ILO-OSH2001 which is ILO international standard.



3 International Cooperation of JCOHSA

(1) ODA

JCOSHA cooperates in the field of occupational safety and health, including support of occupational safety and health organizations in many countries by implementing trainings in Japan for government officials through the request from JICA.

(2) Voluntary program (Cost Charged)

JCOSHA welcomes delegations by ODA and trainees from other countries. In addition, JCOSHA dispatch experts and provide information in response to requests from governments, safety and health related organization in other countries.

① Introduction of Occupational Safety and Health to the person in charge (Malaysia, Hong Kong, Korea, China) JCOSHA provided trainings on occupational safety in the construction industry, safety and health education and COHSMS training.

② Cooperation with the Industrial Safety and Health Association of the R.O.C.

- Dispatch lecturers to the training “Prevention of occupational accidents in roof construction”

- Dispatch instructors to COHSMS training course

- Dispatch lecturers to the Forum on Occupational Safety and Health in Asia in 2017

③ Participated in the Construction Section of International Social Security Association (ISSA)

JCOSHA have participated in ISSA Construction Section since 1999.



Japan Organization of Occupational Health and Safety

1 Japan Organization of Occupational Health and Safety

In order to contribute to the maintenance and promotion of health and safety of all workers, the organization provides services on occupational medicine based on general medical care and conduct research to establish healthy and safe workplaces.

2 Organizational structure and functions



① National Institute of Occupational Safety and Health, Japan



1 National Institute of Occupational Safety and Health, Japan (JNIOSH)

JNIOSH conduct comprehensive research in physical science, engineering, medical science and health science in order to ensure the safety and health of workers in workplaces.

2 Areas of cooperation

(1) Field of Occupational Safety

- ① Investigation of cause of breakage etc. of structural parts such as machine
- ② Research on safety equipment and risk assessment of industrial machinery
- ③ Elucidation of occurrence mechanism and development of prediction technology of slope failure



- ④ Elucidation of engineering factors lead falls of workers and development of preventive technology
- ⑤ Research on chemical engineering to prevent explosion and fire
- ⑥ Research on electrical engineering to prevent electrostatic and electric shock

(2) Field of Occupational Health

- ① Research to prevent health disorders due to overwork
- ② Research on workers' mental health
- ③ Epidemiological study on harmful agents at work
- ④ Toxicological study to analyze mechanism of health effects caused by harmful agents at work
- ⑤ Research on exposure assessment of chemical substances and harmful physical factors on workers and research on improvement of working environment
- ⑥ Ergonomic research to prevent work related diseases

3 Representative technical cooperation

2001-present

Collaborative research/information exchange based on an agreement with Korea Occupational Safety and Health Research Institute
Collaborative research on electric shock and explosion, fire accidents, etc.

2014-16

Dispatch of experts to Department of Occupational Safety and Health, Ministry of Human Resources of Malaysia (ODA)
Technical guidance on construction safety in third-country cooperation program for Cambodia, Laos, Myanmar and Vietnam

2016

- Acceptance of researchers (Korea National Disaster Safety Research Institute)
Disaster investigation, training on overall occupational safety research
- Acceptance of researchers (China Academy of Safety Science and Technology)
Training on protection from harmful substances in welding and painting work
- Acceptance of trainees (Occupational health and safety officials such as Indonesia)
Training and information exchange on occupational health and safety in general

② *Rosai Hospitals*

1 Rosai Hospitals

In order to play a core role in occupational medicine, Rosai Hospitals provide advanced and specialized medical care from prevention to treatment, rehabilitation, and support to return to work. Rosai Hospitals support activities to promote health in the workplace.

2 Areas of cooperation

We can cooperate in the following fields upon requests.

- ① Diagnosis and treatment of pneumoconiosis
- ② Diagnosis and treatment of asbestos related diseases
- ③ Diagnosis and treatment of occupational trauma (hand injury etc.)
- ④ Diagnosis and treatment of spinal and spinal cord injuries
- ⑤ Diagnosis and treatment of musculoskeletal disorders (low back pain)
- ⑥ Health management of working women (female outpatient etc)
- ⑦ Support for balancing treatment and work (mental health, rehabilitation, brain / heart disease)

3 Technical cooperation achievements

2010-2015

Workshops on diagnosis of asbestos related diseases (Mongolia)

2011

Acceptance of Chinese trainees (Project on Capacity Building for Occupational Health in China)

Lecture on “Health management related to pneumoconiosis and asbestos” and practice on reading X-ray

2012-2015

Training for Chinese medical doctors (Project on Capacity Building for Occupational Health in China)

Training of diagnostic technology for pneumoconiosis and asbestos related diseases

Dispatch of experts (Beijing, Nanjing, Suzhou, Xuzhou, Qingdao)

Guidance on diagnosis of asbestos related diseases cases in China

2014

Lectures to physicians from Thailand

(Royal Thoracic Central Disease Research Institute under the Department of Medical Services, Ministry of Public Health, Thailand)

Lectures on countermeasures for asbestos related diseases and occupational respiratory diseases including its prevention

2015

Dispatch of expert (Beijing)

Final evaluation of Project on Capacity Building for Occupational Health in China



③ *Japan Bioassay Research Center*

1 Bioassay Research Center

Japan Bioassay Research Center conducts tests on safety of chemical substances using animals such as rats and mice and mutagenicity tests using microorganisms and cultured cells as well as applied research to develop exposure technology for newly introduced chemical substances including nanomaterials, and fundamental research regarding mechanisms of pulmonary toxicity development.

2 Areas of cooperation

① Techniques of inhalation exposure test

Cooperation on inhalation exposure test technique on laboratory animals according to the exposure form of workers

② Genotoxicity test

Simple genotoxicity test which can be carried out in toxicity test

③ Applied research to meet the needs of new toxicity evaluation

Analysis of toxicological mechanisms based on pathological morphology

3 Representative technical cooperation

2000

Dispatch of experts (ODA)

Guidance on pathology diagnosis to Korean research institutes

1997

Dispatch of experts (ODA)

Guidance on inhalation exposure technique for Korean research institutes

1993

Acceptance of trainees (ODA)

Training on inhalation exposure technique for executives of Korean research institutes

University of Occupational and Environmental Health, Japan (UOEH)



1 University of Occupational and Environmental Health, Japan (UOEH)

It is the only medical university in Japan with the primary objective of fostering occupational health physicians and occupational health professionals whose role is to protect workers' health in companies. With a curriculum up to graduate school, we have been developing a high level of human resources in the fields of occupational medicine and occupational hygiene. We have also been conducting research that aims at preventing occupational diseases, promoting physical and mental health of workers, improving working environments and working styles.

In addition, the Institute of Industrial Ecological Sciences (IIES-UOEH), designated as a WHO Collaborating Centre for Occupational Health in 1988, actively plays its role as a center for research and education. IIES-UOEH has been accepting researchers internationally from various universities, institutions and companies.

2 Areas of cooperation

UOEH provides trainings in the following areas for occupational health professionals including government officials and medical doctors. Requests for collaborative research are welcome.

- (1) Prevention of occupational diseases including asbestos related health disorders, toxication caused by chemicals.
- (2) Evaluation of risks and prevention of health disorders of newly introduced substances at work such as nanomaterials
- (3) Promotion of mental health of workers including relieving stress at work
- (4) Development of occupational health management system and its effective implementations
- (5) Maintaining and promoting health of elderly workers in the aging society

3 Representative technical cooperation

① Training based on the official development assistance (ODA) in 2017

UOEH implemented two training courses for the Iraqi National Center for Occupational Health and Safety.

-Training for medical staff and assistants in diagnosing occupational disease

-Practical training on analytical measures of hazardous substances in the work environment.



② Dispatch of experts based on an agreement between UOEH and institution in 2016

Dispatched lecturers for workshops on occupational stress and evaluation of toxicity in nano materials organized by National Institute of Occupational Health and Poison Control, Chinese Center for Disease Control and Prevention.

③ Dispatch of experts upon request 2015-2016

Dispatched lecturers for the occupational health conference and the radiation health sciences workshop hosted by Abu Dhabi National Oil Company (themes: Occupational Health in Nuclear Disaster, Radiation Risk Management for Nuclear Workers)).

④ Dispatch of experts as a WHO collaborating center in 2015

Dispatched an expert as a WHO expert for the workshop of drafting National Action Plan for eradication of asbestos related diseases in Vietnam

⑤ Group training course based on ODA 1985-2012

Training on general occupational health for government officials, medical doctors and occupational health professionals.





【Contact】

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Labour Standards Bureau

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