

Summary of Terminal Evaluation

I. Outline of the Project	
Country: People's Republic of China	Project title: Project on Capacity Building for Occupational Health
Issue/Sector: Social Security/Labor and employment	Cooperation scheme: Technical Cooperation
Division in charge: Human Development Department Social Security Team, Higher Education and Social Security Group	Total cost: 420 million yen
Period of Cooperation	(R/D): 31 st March 2011-30 th March 2016
	Partner Country's Implementing Organization: State Administration of Work Safety, China Academy of Safety Science and Technology, National Health and Family Planning Commission, and Chinese Center for disease control and prevention
	Supporting Organization in Japan: : Ministry of Health, Labour and Welfare
Other Relating Organizations:	
<p>1. Project Background</p> <p>The frequent occurrence of occupational diseases in recent years has emerged as a serious social problem in the People's Republic of China. In 2013, 26,393 cases of occupational disease (pneumoconiosis: 23,152, acute occupational poisoning: 637, chronic occupational poisoning: 904, and other occupational diseases: 1,700) emerged in China, with pneumoconiosis accounting for 87.70 percent of the total cases. Under these circumstances, the government of China has strengthened its measures by developing "Occupational Disease Prevention and Control Act" (enacted and enforced in 2002, revised in 2011) and "National Prevention and Control Plan for Occupational Disease" (2009-2015). However, the measures against the occupational diseases were not fully functional due to ① the lack of related laws and standards, ② insufficient capacity of supervision/management and collecting/analyzing information, and ③ organizations' lack of knowledge regarding occupational diseases.</p> <p>Against this background, the government of China requested the government of Japan a technical cooperation project for the purpose of strengthening supervision and management, technical services, information collection and analysis, and health awareness and management ability regarding occupational diseases in the workplace. Consequently, the Japan International Cooperation Agency (JICA) has been implementing the "Project on Capacity Building for Occupational Health" (hereinafter, the Project) from March 2011 to March 2016 with Chinese counterparts, the State Administration of Work Safety and the National Health and Family Planning Commission.</p> <p>The Project has developed teaching materials and provided training to supervisors and managers in order to achieve its purpose to "enhance working environments and health management in the model area to prevent against occupational disease caused by dust and organic solvents." Prior to the Project's completion in March 2016, this Terminal Evaluation was implemented to verify the progress of project</p>	

activities and results of outputs as well as to draw recommendations from the Project.

2. Project Overview

(1) Overall Goal

The measures of occupational health developed by the Chinese side based on the results of the model area³ are introduced in other areas in China.

(2) Project Purpose

Enhance working environments and health management in the model area to prevent against occupational disease caused by dust and organic solvents.

(3) Outputs

Output 1: Improve the capacity of central governments and related technical institutions for work environment management and health management against dust and organic solvents.

Output 2: Improve the capacity of relevant government and related technical institutions in the model area for work environment management and health management against dust and organic solvents.

Output 3: Improve the awareness and self-management skills in the work environment and health management spheres of companies and employees in the model area to prevent against occupational health risks.

(4) Inputs (at the time of evaluation)

Japanese side: Total cost 420 million yen

Long-term Experts: 4 person Equipment: 6,569,000 yen
 Short-term Experts: 33 person Local cost: 68,147,000 yen
 Training in Japan and third country: 213 person

Chinese side:

Counterparts (C/P) 61 person
 Project office/facilities
 Local cost: 95,978,000 yen

II. Evaluation Team

Members of Evaluation Team	Function	Name	Designation
	Team Leader and Evaluation Planning	Ayumi Yuasa	JICA, Human Development Department, Social Security Team, Higher Education and Social Security Group, Advisor
	Occupational Health Policy	Yukio Yanagawa	Ministry of Health, Labour and Welfare, Labor Standards Bureau, Industrial Safety and Health Department, Chemical Hazards Control, Senior Analyst

³ Model Area: Suzhou city, Jiangsu province

	Occupational Health Management	Kenji Miyamoto	Japan Labour Health and Welfare Organization, Hokkaido Chuo Rosai Hospital, Director
	Occupational Health Environmental Improvement	Akihiro Araki	Japan Industrial Safety and Health Association, Occupational Health Research and Development Center, Deputy Director
	Evaluation and Analysis	Haruo Ito	ICONS Inc. Senior Consultant
Period of Evaluation	August 31st, 2015-September 17th, 2015		Type of Evaluation: Terminal Evaluation

III. Results of Evaluation

1. Project Performance

(1) Input and Activities

Inputs from both Japanese and Chinese sides have been provided as planned, and those inputs contributed to the generation of the project outputs. Over a five-year period, the Project planned to implement the capacity development of relevant institutions in central government (Output 1), relevant institutions in the model area of Suzhou City (Output 2), and companies in the model area (Output 3). At the time of the Terminal Evaluation, all activities have been implemented as planned, and capacity development through supporting model companies (Output 3) is in progress based on the achievements of the first half of the Project at the central level and in the model area (Output 1 and 2).

(2) Outputs

Output 1: Improve the capacity of central governments and related technical institutions for work environment management and health management against dust and organic solvents. :

Achieved

Indicators of Output 1 have all been achieved. The Project serves many trainees through the instruction of short- and long-term Japanese experts as well as through study teams. Trainees' level of comprehension and ability to utilize the knowledge provided through the training are sufficient. Furthermore, training materials and reports on the "Pneumoconiosis and Organic Solvents Poisoning Case Study Meeting" developed as a result of the training and project activities in the model area have been fully utilized. Therefore, certain improvements on the capacity of counterparts in central institutions have been identified.

Output 2: Improve the capacity of relevant government and related technical institutions in the model area for work environment management and health management against dust and organic solvents. : **Achieved**

Indicators of Output 2 have all been achieved. The Project serves many trainees (total of 101 participants from central ministry and total of 863 participants from related agencies) through the instruction of short- and long-term Japanese experts as well as through study teams. Trainees sufficiently comprehended the training contents, and have also utilized their knowledge to develop training materials, provide training, and carry out pneumoconiosis diagnoses. The capacity of

government institutions in the model area on work environment management and health management has been improved through the implementation of training and the supervision of model companies.

Output 3: Improve the awareness and self-management skills in the work environment and health management spheres of companies and employees in the model area to prevent against occupational health risks. : **Achieved**

Indicators of Output 3 have all been achieved. Fifty model companies were selected to implement activities that seek to strengthen occupational safety and health management, and the baseline survey was administered to these model companies (Indicator 3-1). In addition, all of these model companies developed an improvement plan (Indicator 3-2), and each of these plans has been implemented. “Corporate Occupational Health Management Personnel Training” has been implemented by utilizing the training materials developed by the State Administration of Work Safety in Suzhou City. Moreover, it was confirmed that the examination following the training sessions in Nanjing in Jiangsu Province showed participants’ high comprehension of occupational health management.

(3) Project Purpose

Enhance working environments and health management in the model area to prevent against occupational disease caused by dust and organic solvents. : **Achieved**

The achievement of all indicators of the Project Purpose has been verified. All related government personnel to the Project in central institutions and officials in the model area (target 80%) replied that their work environment and health management capacity has been strengthened (Indicator 1). Although some model companies reported difficulties in implementing their improvement plans due to insufficient awareness of occupational health and a lack of facilities, 86% of model companies (target 80%) have implemented their improvement plans (Indicator 2). In fact, an end-line survey revealed that 92% of model companies (target 80%) have improved their working environment (Indicator 3). In addition, the regular implementation of health checks and the increase of health checks prior to hiring in model companies have been identified (Indicator 4).

(4) Overall Goal

The measures of occupational health developed by the Chinese side based on the results of the model area are introduced in other areas in China.

A portion of the Overall Goal indicators has already been achieved at the time of terminal evaluation. The China Academy of Safety Science and Technology and the State Administration of Work Safety in Jiangsu Province implemented “Corporate Occupational Health Management Personnel Training” in Nanjing of Jiangsu Province, which is outside of the model area, as efforts of the work safety sector. In addition, this training is being planned for companies in Foshan City of Guangdong Province. The future implementation of the “Debriefing Seminar of Improvement Cases of Occupational Health” and the distribution of reports of this seminar to other areas for sharing outcomes from the model company have been planned.

Also in the health sector, the “Pneumoconiosis Case Study Meetings” were implemented in areas outside of the model area, such as in Xuzhou City of Jiangsu Province and Qingdao City of Shandong Province, by utilizing the “Instructions for Holding the Pneumoconiosis Case Study Meetings” developed by the Project. Thus, these instructions have the potential to be implemented in similar case

study meetings in areas outside of Suzhou City.

2. Summary of Evaluation Results

(1) Relevance: High

Relevance of needs of target group

Pneumoconiosis and occupation poisoning dominate more than 90% of the occupational diseases reported in China, and these issues should be coped with preferentially. In addition to those risk factors, the Project's trainings have also addressed other risk factors, such as physical factors (vibration, noise, and temperature environment), ergonomics, and workers' health instruction after the Project Mid-term Review. Moreover, Suzhou City in Jiangsu Province, selected as a model area where economic development is progressing, has also presented remarkable issues in the occupation health realm. The selection of Suzhou City as the model area is also relevant because appropriate implementation organizations for the Project were established in Suzhou City ahead of other areas in China.

Relevance of the national policy of China

The Project Purpose and Overall Goal are consistent with "National Prevention and Control Plan for Occupational Disease" (2009-2015). In the model area of Suzhou City, "Prevention and Control Plan for Occupational Disease in Suzhou City" (2009-2015) aims toward the reduction of pneumoconiosis and organic solvent poisoning incidences, as well as the increased number of health checks.

Relevance of the cooperation policy of Japan

The Project is regarded as supporting the strengthening of the legal system and governance in order to revitalize the private sectors whose market economy is based on supporting reform and the opening up of markets, which are prioritized in the economic cooperation of the Government of Japan (August 2010) in China.

(2) Effectiveness: High

Achievement of the Project Purpose

All indicators of the Project Purpose have been achieved. These indicators are as follows: the capacity development of officials and related personnel in the central governments and governments of the model area (Indicator 1), the implementation of the improvement plans in model companies (Indicator 2), the improvement of the working environment in model companies (Indicator 3), and the increased number of initial and regular employment health checks (Indicator 4).

Contribution of each output to the achievement of the Project Purpose

The capacity development of the government officials at the central level (Output 1), government officials in the model area (Output 2), and government officials through the activities in the model companies (Output 3) contributes to the achievement of the Project Purpose. Therefore, the cause-and-effect relationship between each output and the Project Purpose is clear.

(3) Efficiency: High

Achievement of outputs and the appropriateness of inputs

It was confirmed that the timing of inputs, such as the dispatch of experts and training in Japan,

was appropriate. With regard to training in Japan, the purpose of the training curriculum was clearly identified, and the target levels of the contents were also suitable. In addition, the knowledge obtained by the training sessions has accumulated in related institutions as participants share and report contents of the Project, and training results are also effectively utilized. The training of short-term experts has produced a number of participants despite a limited number of training days. In addition, given that training fees (travel and accommodation) are shared with the Chinese side, training management has been efficient.

Coordination of related organizations

Effective coordination with related institutions was identified, especially in Suzhou City. For example: ① Suzhou City CDC officials served some lecturers in the “Corporate Occupational Health Management Personnel Training” organized by the Suzhou City Administration of Work Safety, and ② the Suzhou City Administration of Work Safety also introduced companies to the Suzhou City CDC for the “Pilot Project of Workers Health Instruction”.

Utilize other project resources

To effectively utilize the experience of the JICA project in another country, a third-country training program (a technical exchange program) was implemented at the National Institute of Occupational Safety and Health in Malaysia.

(4) Impact: Relatively High

Prospect of Overall Goal achievement

The indicators of the Overall Goal are set as the implementation of training and case study meetings, as well as the use of results from model companies outside of the model area. Some efforts toward the future achievement of the Overall Goal have been identified as work safety sectors have already carried out the “Corporate Occupational Health Management Personnel Training” for companies in Nanjing of Jiangsu Province (outside of the model area). The same training is also planned to be implemented for Foshan companies in Guangdong Province. In addition, the health sectors also carried out the “Pneumoconiosis Case Study Meeting” outside of the model area, specifically in Xuzhou City in Jiangsu Province and Shandong City in Qingdao Province.

In addition, it is expected that the Project will continue efforts to promote the effective use of such resources as training materials and case study committee reports that have already been distributed to other Chinese provinces.

Other impacts

Following are some cases that illustrate the positive impacts of the Project.

- ① The dust-proof respirator exhaust technology laboratory was installed in the China Academy of Safety Science and Technology, and is used not only for laboratory practice but also for human resource development through providing practical training.
- ② Some related regulations and standards in China have been developed mainly by training participants in Japan by referring to Japanese regulations and the results of model companies.
- ③ In response to the results of the “Corporate Occupational Health Management Personnel

Training” for the companies in Suzhou City, the Administration of Work Safety at the district and county levels under the Suzhou Administration of Work Safety implemented the same training for 7,000 company participants.

- ④ Each model company in Suzhou City has invested about 40 million yuan towards the improvement of working environments.
- ⑤ “The Pneumoconiosis Diagnostic Manual”, which is expected to contribute to appropriate pneumoconiosis diagnosis in compliance with diagnostic procedures, has been developed on the basis of the Project results.
- ⑥ The "Workers Health Instruction," which resulted from the training in Japan, was referred to in the contents of the "Health Promotion Demonstration Enterprises in Jiangsu Province.”

(5) Sustainability: High

Political aspect

The results of the Project, such as “strengthening training and management ability of occupational health management personnel,” “establishing a foundation of corporate occupational health,” and “promoting experience exchanging meetings relating to the corporate occupational health at the local level” are expected to be incorporated in the 13th five-year plans of "Occupational Disease Prevention Treatment Plan" and "National Prevention and Control Plan for Occupational Disease." Both of these plans are currently being developed by the State Administration of Work Safety. Therefore, the political sustainability of the Project is evaluated as high.

Institutional and financial aspects

The training developed by the Project has been budgeted for next year’s programs: the Suzhou Administration of Work Safety and the Chinese Center for Disease Control and Prevention. The China Academy of Safety Science and Technology also included the Project’s training into its future action plan. In addition, as the Suzhou Administration of Work Safety and its jurisdictional Administration of Work Safety units at the district and county levels implemented the training for 7,000 corporate participants funded by their own budget, the financial sustainability is judged as high.

Technical aspect

As has been previously described in section “1. Project Performance, (3) Outputs,” the improvement of the capacity of relevant governments and technical institutions on supervision of work environment and health management was identified at both the central level and the model area.

3. Factors Promoting the Realization of Effects

(1) Planning Factors

Flexible process based on needs (expansion to other risk factors)

The Project has flexibly responded to other risk factors such as physical factors (vibration, noise, and thermal environment), ergonomics, and the health instruction of workers. In addition to pneumoconiosis and organic solvents. This flexible provision of training, which meets the training needs of counterpart institutions, has enhanced their motivation.

(2) Implementation Process Factors

Information provision prior to training participation

The Japanese experts provide related information and background knowledge to participants prior to initiating the training in Japan. This pre-preparation enables the improvement of training efficiency.

Utilization of appropriate training methods

The case study meetings have been identified as significantly effective as they utilize the participatory training method in which all participants discuss the diagnosis of cases that were carefully selected in advance. Regarding the model companies, the effectiveness of training was also improved by adopting the training method of gathering industries in similar fields to strengthen corporate compliance with mutual surveillance (Such mutual surveillance ensures the prevention against negative practices in companies).

Continuous education system for health workers

In the “Pneumoconiosis Case Study Meetings” in Qingdao City, participating medical staff received certified points (3 points) from the Qingdao Medical Society. Utilizing this previously existing continuous education system for medical personnel in the Project training has increased the participation rate and participants’ motivation.

Dissemination of outputs to other areas

Many officials and medical staff outside of the model areas have participated in the training in Japan. Those outside the model areas have played significant roles in carrying out the “Corporate Occupational Health Management Personnel Training” as well as “Pneumoconiosis Case Study Meetings” within their organizations. This outcome is a cornerstone of the Overall Goal achievement as the project results have been dispersed to other areas in China.

4. Factors Impeding the Realization of Effects

(1) Planning Factors

Limitations in Japanese training

In the Japanese training, participants were unable to participate in the actual administrative supervision due to confidentiality issues, and companies that are allowed to accept visitors are very few. As a countermeasure, the Project allocated retired Japanese labor standards inspectors as short-term experts to China. These Japanese experts exchanged opinions with their Chinese counterparts, and accompanied administrative supervisors in Chinese companies.

(2) Implementation Process Factors

Unsuitable specialty and personnel transfer

Training is not always efficient, because in some cases training was not aligned with participants' specialties and there was the personnel transfer in counterpart organizations. On the other hand, the Project attempts to accumulate knowledge as an institutional recollection rather than individual knowledge by developing training materials and procedure manuals, as well as through documenting and sharing training results.

5. Conclusion

The results of the Terminal Evaluation reveal that the Project has implemented its activities as planned, and has generated expected outcomes.

First, as the needs of the target groups and policies of China and Japan have remained consistent with the Project Purpose even at the time of the Terminal Evaluation, relevance is evaluated as high. As the results of each output have contributed to achieving the Project Purpose, effectiveness is also evaluated as high. Since the Project activities have been implemented as planned and generated expected outputs, and further because the quality, quantity, and timing of the inputs are also appropriate, the efficiency of the Project is also high. Although some efforts toward achieving the Project's Overall Goal have been initiated, future dissemination of the results to other areas is required, with continuous promotion of training developed by the Project. Therefore, the impact of the Project is evaluated as relatively high. Because all political, institutional, financial, and technical aspects of sustainability were identified as high, the training and case study meetings developed by the Project are expected to be implemented in the future. Thus, sustainability of the Project is evaluated as high.

The overall results show that the Project has been implemented smoothly, and as the Project Purpose has been achieved, the Project will be completed in March 2016 as planned.

6. Recommendations

(1) Continue training developed by the Project

Counterpart institutions should continue training with the Project materials and trained instructors. Moreover, those trainings should be integrated into the existing training systems and annual action plans of each related institution to ensure that necessary personnel and budgets are provided.

(2) Promote company initiatives for promoting work environment

Counterpart institutions should promote the awareness of occupational health through such approaches as sharing good practices, providing evidences of improvement effects, and discussing the concerns of occupational health risks.

(3) Revise training materials

Training materials and procedure manuals developed by the Project should be revised as needed according to the revision of relevant laws and rules, and based on the results of training.

7. Lessons Learned

(1) Technical transfer related to company supervision

Counterparts who participated in the training in Japan strongly needed to observe actual corporate supervision in Japan. However, as noted in the "Factors Impeding the Realization of Effects" section, it was impossible for counterparts to participate in actual corporate supervision in Japan due to the protection of confidential corporate information. There are very few companies that accept company visits. Consequently, the Project dispatched retired Japanese labor standards inspectors to China as short-term experts to accompany corporate supervisors and exchange opinions with counterparts. For planning technical transfer on corporate supervision, which heavily involves confidential corporate information, dispatching Japanese inspectors rather than counterparts participating training in Japan could be the better measure.