

Summary of Evaluation Result

1. Outline of the Project		
Country: Republic of Chile		Project Title: Project for Strengthening the National Food Safety Program
Issue/ Sector: Others		Cooperation Scheme: Technical Cooperation Project
Division in Charge: Health Human Resources Division, Health Human Resources and Infectious Disease Control Group, Human Development Department		Total Cost: 2.9 hundred million yen
Cooperation Period	15 December , 2005 to 14 December , 2008	Partner Country's Implementation Organization: Ministry of Health (MINSAL)
		Supporting Organization in Japan: Ministry of Health, Labour and Welfare, Yokohama Quarantine Station
		Other Supporting Organization: None
<p>1-1 Background of the Project</p> <p>The Government of Chile has geared to improve the medical care system since the democratization on 1990. The public health services including food safety has been strengthened since former Frei administration. Food sanitation regulation was enacted on 1996, the standard values of chemicals and pesticide residues in food were established in the second half of 1990, and various food related legislations were developed. But the analytical techniques have not caught up with above legislations, the full control measures were not taken for the food in the markets, because of a shortage of competence laboratory in local area.</p> <p>The hygiene system in food manufacturing process such as Good Manufacturing Practice, GMP, and Hazard Analysis Critical Control Points, HACCP were implemented and extended in many countries including developed countries, the Government of Chile has a plan to strengthen food sanitation regulations such as HACCP compulsory regulation in food industries. However, there is strong concern that the food sanitation inspectors lack competence in the inspection and audit of food manufacturing process.</p> <p>Under this situation, the Government of Chile requested assistance to the Government of Japan to implement the Technical Cooperation Project which aims to strengthen the food safety administrative agency. The Project was commenced in December 2005 for three years to strengthen the functions of food safety administration system with the aims of technical assistance and human resource development, to Ministry of Health (MINSAL) and its subordinate organizations such as Public Health Institute of Chile (ISP) and Regional Ministerial Secretariat of Health (SEREMI).</p> <p>1-2 Project Overview</p> <p>(1) Overall Goal:</p> <p style="padding-left: 20px;">Safety of foods in Chilean market is improved and security level of Chilean consumers is increased.</p>		

(2) Project Purpose:

Chilean National Food Safety Program is strengthened through the introduction of HACCP and food residues monitoring.

(3) Outputs:

1. Capability of food safety management of MINSAL is strengthened.
2. The level of inspection and supervision of food safety inspectors is improved.
3. Capability of food analysis at laboratory network of MINSAL is strengthened.
4. Capability of formulation and implementation of sampling plan is strengthened.

(4) Inputs (as of October 2008):

(Japanese Side)

Placement of Experts: Long-term (2), Short-term (12), C/P training in Japan: 10 C/Ps

Provision of Equipment: JPY108.3 million

Local Cost Support: JPY17.3 million

(Chilean Side)

C/P allocation: 27 C/Ps

Buildings and Facilities

Local Budget: 712 million Chilean Peso (equivalent to US\$1,291 thousand)

2. Evaluation Team (Japanese side)

Team Members	<p>-Leader: Fumio KAWANO, Resident Representative, JICA Chile Office</p> <p>-Food Analysis: Hiroshi TAKIMOTO, Director, Yokohama Quarantine Station, Eastern Laboratory for Imported Foods and Infectious Diseases, Ministry of Health, Labour and Welfare</p> <p>-HACCP/Food Safety Administration: Takuya KONDO, Export country inspection expert, Department of Food Safety, Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare</p> <p>-Cooperation Planning: Haruka SHINDO, Human Development Department, JICA</p> <p>-Evaluation Analysis: Kazumi UENO, Overseas Merchandise Inspection Co., Ltd.</p> <p>-Translator: Hiroko SUZUKI, Chile</p> <p>* The Project was evaluated jointly, with five member from the Chilean side.</p>	
Period	22 September – 11 October, 2008	Type of Evaluation: Terminal Evaluation

3. Summary of Evaluation

3-1 Result of Cooperation

(1) Achievement of Output

1) Output1: Capability of food safety management of MINSAL is strengthened.

i. Supervision and support plan of HACCP audit by MINSAL

MINSAL has already developed the draft of supervision and support plan for HACCP audit to supervise and assist SREAMI, and also MINSAL established a team to supervise the application of HACCP audit in each SEREMI. It is expected that the supervision and support plan of HACCP audit by MINSAL will be formulated by December 2008, in order to start in

2009. During 2008, the support has been given to the regions by intranet and TV conference.

ii. National residues monitoring plan

Pilot residues monitoring plans on Veterinary drugs, Mycotoxin, and Pesticide residues have been planned and implemented. MINSAL has a plan to formulate a national residues monitoring plan by December 2008, which is to be implemented in 2009, in cooperation with Agriculture and Livestock Service (SAG) and National Fishery Service (SERNAPESCA).

2) Output2: The level of inspection and supervision of food safety inspector is improved.

i. Number of food safety inspector who have acquired the capability of HACCP inspection and audit reached 63 by December 2008.

Total number of trainees on three HACCP audit courses has reached 66 from nation-wide 15 SEREMI. The food safety inspector from each SEREMI have acquired the basic knowledge on HACCP, the methodology of drawing up HACCP plan, and the audit techniques based on HACCP etc. The training course developed by the Project consists of theoretical aspects and also workshop and practices.

ii. Number of HACCP inspector to food enterprise reaches at least 126 by December 2008.

The report of SEREMI, informed that the number of HACCP audit was 60 from April to June 2008, and it is expected that the number of HACCP audit will be over 126 by December 2008, with the same rate of auditing enterprises.

3) Output3: Capability of food analysis at laboratory network of MINSAL is strengthened

i. Number of inspection item that can be detected through laboratory network of MINSAL reaches at least 50 by December 2008.

Japanese experts have trained for MINSAL laboratory staff, using provided equipment by the Project, and the number of inspection item is totally 85. And the achievement was confirmed by the practice and final written test passed by the participants.

ii. Number of analysis that have acquired new method for food analysis reaches at least 30 by December 2008.

The number of analysts who have acquired new analytical methods by the training was totally 49.

4) Output4: Capability of formulation and implementation of sampling plan is strengthened.

i. Develop the manual for sampling procedure by December 2007.

Sampling manual was prepared in collaboration with 5th SEREMI and ISP professionals. It was issued on March 2008. The manual was based on a first version, developed after a JICA group course training in a Follow Up initiative by a JICA ex-participant.

ii. Number of technicians that have acquired sampling techniques reaches at least 30 by December 2008.

The Project had a food sampling training for totally 31 analysts from SEREMI's on September 29 and 30, 2008.

(2) Achievement of Project Purpose

1) Indicator 1: All the facilities of enterprises in the primary category based on the technical criteria of food safety regulations introduce HACCP by December 2008.

HACCP compulsory regulation was issued on July 2006, with the modification of article No.69 of the Sanitary Food Regulation, by enacting the Resolution No.658, which stipulated March 2008 as implementation date for the first category industry. But such implementation was

postponed due to administrative reason. MINSAL has directed all the directors of SEREMI the notification procedure for the compulsory implementation of HACCP, according the criteria and schedule stipulated in Resolution No.187.

At the evaluation stage, 120 facilities have already implemented HACCP. The number is 90% of total number of facilities as 132 of the primary category. Therefore, there is a good prospect that all facilities of primary category will introduce HACCP within 18 months of grace periods after the notice of HACCP compulsory.

2) Indicator 2: Number of food sample for monitoring residues and pathogenic organisms reaches at least 500, and the number of analysis reaches at least 2500 by December 2008.

At the evaluation stage, it has achieved that the number of monitoring sample was 729, and the number of analysis was 2946 as of September 2008.

(3) Implementation Process

1) Ownership by the Chilean side

Ownership of the Project by the Chilean side is very high. The Chilean side has provided necessary financial and human resources to implement the Project smoothly, and MINSAL has purchased some equipment by itself to strengthen the laboratory capability for food residue monitoring.

2) Implementation process of activities

Weekly coordination meeting with the constant participation of all the parties involved has contributed to the smooth communications, to an appropriate decision making, activities planning and to the intra-sector coordination among involved institution. The results of meeting were reported to MINSAL authorities, which gave a continuous support to the Project activities.

Since MINSAL understands Japanese ODA scheme, it has contributed to the Project implementation and relation-building with other Government agencies and organization involved.

3) Relationship between Japanese experts and counterparts

The Project had sometimes encountered the difficulties on the implementing process such as mechanical troubles after installation of equipment and the delay of provision of reagents for the training, but both of Japanese side and Chilean side could solve the problems promptly with good relationship, efforts and also good communication through related persons.

3-2 Summary of Evaluation Results

(1) Relevance

The Relevance of the Project is high.

1) Relevance of the Project for Chilean Government Policy

The Project is found to be relevant to “Sanitary Objectives for Decade 2000 – 2010”, names food safety as one of the priority areas in public health. The current circumstances of food safety always change, not only in domestic markets but also all over the world. Therefore, strengthening national food safety program is a priority to Chile.

The Chilean Government has identified the challenge on food safety to create a new institution called the Chilean Agency of Food Safety (ACHIA) with an approach that considers the need to have a modern, efficient and integrated national food safety system in order to have a high level protection of human health, the respect for consumer rights.

Health administrative reform was implemented on 2005, and health administration was divided into public health and medical care as decisive element. And from 2005, food safety as public health has been regarded as important in both institutional and financial aspects. The budget for equipment and its maintenance has increased, and the staff number of HACCP and laboratories has been increased.

2) Relevance of Japan's ODA Policy

One of the four priority areas in Japanese Official Development Assistance (ODA) in Chile is the improvement of environment and health. This includes food safety management. The relevance of cooperation in food safety management for domestic market is also high in terms of Japanese ODA Policy.

3) Relevance of the target group

The Project properly aims at strengthening National Food Safety Program, and the capacity development in the fields of food safety is the most important issue to protect consumers in the domestic markets. Since MINSAL is the responsible agency in Chile for food consumer protection., MINSAL is the relevant target group for the Project.

(2) Effectiveness

All Outputs have contributed to realize the Project Purpose, and thus the Project has secured its effectiveness successfully.

1) Achievement of the Project Purpose

The expected four Outputs have almost achieved at the timing of the final evaluation. The remaining activities are likely to be accomplished at the end of cooperation period.

2) Contribution of Outputs to the Project Purpose

The Outputs have contributed to the Project Purpose. Through the Activities of the Project, the counterparts have acquired the knowledge and experience of HACCP audit and Food residue monitoring to strengthen the National Food Safety Program as following steps:

- i. Capability of food safety management program of MINSAL was strengthened through development of supervision and monitoring plan and collaborative work for national residue monitoring plan with SAG and SERNAPESCA. (Output 1)
- ii. The level of food safety inspector was improved by the HACCP training and standardized supervision. Moreover, the intensive continuous training for HACCP audit by Chilean side has conducted to maintain the capability of inspectors in SEREMI. (Output2)
- iii. Capability of laboratory network was strengthened by introducing new analysis methods from the Japanese experts and the capability of laboratory staffs was improved by some trainings of Chilean side after the training by Japanese experts. ISP has made the Standard Operation Procedure (SOP) to standardize other combination of analysis item and food matrices. (Output3)
- iv. Capability of sampling techniques was strengthened by the development of sampling manual and training. (Output4)

(3) Efficiency

The efficiency of the Project is high.

1) Inputs of experts and equipment

As for short-term experts, they were dispatched almost timely, after installation of equipment, to transfer their technology. At the beginning, some equipment had running difficulties, but the problems were solved by the efforts both of short-term experts and counterparts.

Furthermore, the short-term experts have enough professional knowledge and skills in HACCP system and in food residues analysis, and the counterparts are satisfied with the level of the experts according to the results of the questionnaire survey.

2) Ability and efforts of counterparts

The enormous ability and diligence of the counterparts on the food safety fields and the organization strength of MINSAL made the Project fulfill the satisfactory level of achievement.

3) Coordination with group training course in Japan

Many counterparts have participated in group-training courses in Japan both before and during the Project, and their experiences have contributed to achieve some Outputs in the Project such as the preparation of sampling manual and HACCP supervision manual, the coordination of analysis training course by Japanese experts.

4) Equipment provided by Japan

All equipment were provided on schedule, and they have been utilized by the technology transfer during the analysis training efficiently. They have been effectively used for actual food residues monitoring in each laboratory.

(4) Impact

During the evaluation period, several positive impacts were found, which have already emerged.

1) Food safety program

The Project could contribute to improve various fields of food safety program such as establishing food standards and risk communication other than HACCP and residue monitoring.

2) Improvement of laboratory facilities

Before new equipment was provided by the Project, ISP and local laboratories had renovated their facilities to install the equipment in good conditions. It contributed to the improvement of laboratory functionality for good analysis and making possible the development of quality assurance for public health environment analysis.

3) Dissemination of food safety consciousness education

The Project has assisted the food poisoning prevention campaign organized by MINSAL. This contributed to strengthen dissemination of food safety information to food business operators and consumers.

4) Strengthening the export competitiveness

Introducing HACCP system and national residue monitoring plan contributes to comply with international food safety standards, and consequently contributes to improve the introduction and expansion of Chilean food in international markets.

5) Cooperation with other agencies

The implementation of new analytical techniques transferred by the Project will allow to establish inter-sector work with MINSAL, SAG and SERNAPESCA to design the integrated national food monitoring program which satisfied the requirement of national and international regulations.

(5) Sustainability

By looking at the sustainability of the Project from three different aspects: institutional, financial, and technical aspect, it can be concluded that the sustainability is likely to be secured in the future.

1) Institutional aspect

It is expected that national food safety system in Chile will be strengthened by the development of food safety policy and the creation of ACHIA in the future, challenge for which MINSAL is prepared to great extent using Project results.

2) Financial aspect

The budget allocated for the food safety program has been increased from 2006, for the acquisition of equipment and its maintenance, securing new human resources and its training.

There is a tendency of budgetary expansion of the national food safety program. Chile is now facing the challenges such as the institutional changes, creation of ACHIA and transforming the country in food potential. For these achievement, MINSAL has strengthened the network of 15 SEREMI, and secured the budgets allocation for SEREMI and local laboratories after the Project.

3) Technical aspect

Using the provided analytical methods and equipment by the Project, ISP can implement new analysis method for the combination of food matrices and analytical items, and validate these methods and transfer to the laboratory network, and play a better way its role of reference laboratory. And ISP has prepared SOP for each analysis, and it can transfer the technique to other local laboratories and take over to next generation by itself.

MINSAL recognize that continuous training for inspector in audit is an important element for the incorporation of a prevention system in the inspection through the HACCP audit, and designed a continuous training system of inspector for HACCP audit. As a first step, MINSAL implemented the activities such as intensive course, delivery of information by intranet, video conference for all SEREMI and e-learning courses.

3-3 Promoting Factors

(1) Motivation for strengthening the capability of food residue analysis

Some food hazards, potentially harmful substances in food all over the world, are threat to Chilean consumers, and they are the motivation to promote MINSAL and SEREMIS to strengthen the laboratory capability, since protecting consumer's health is their mission.

(2) Cooperation with private sectors

During the HACCP training, the trainees received basic training in the lecture, and audit training in the real food production process in some private factories. The factory audit workshop in the production lines was useful to practice the HACCP audit for food safety inspectors. The cooperation with private sectors has contributed to HACCP audit practices.

3-4 Impeding Factors

(1) Lack of resources in small and medium companies for HACCP introduction

Generally, Small and medium food companies have some difficulties to introduce HACCP, since they have not enough knowledge on HACCP, not so enough staff for implementing and

maintaining HACCP system, and not so enough financial resources to improve their facilities. The lack of resources may be a impeding factor for HACCP introduction, therefore the Chilean Government need to enlighten those small and medium companies.

3-5 Recommendations

<Recommendation to HACCP area>

- It is suggested to assure the establishment of HACCP teams, exclusively dedicated to HACCP audit and trained adequately, in each and every 15 SEREMI.
- To maintain, continue and expand the HACCP audit, it is necessary to make the continuous/follow-up training program according to the experience of each inspector.
- The promotion of acquiring the knowledge, skill up and standardizing HACCP audit is necessary, for example, through establishing the network which all the inspectors could share their practical experiences of HACCP auditing.
- For the further development of HACCP in Chile, close relationship and cooperation between industries, academics and administration, such as establishing the HACCP Alliance, is needed.
- It is necessary to establish a speedy microbiological analysis system, in order to support HACCP audit.

<Recommendation to laboratory area>

- Adequate laboratory facility, equipment and technical personnel for the development of analysis activities are necessary.
- Continuous training program for analysts to implement monitoring plan surely is necessary.
- For utilizing every equipment in good condition continuously, the assurance of budget for equipment maintenance is necessary in ISP and regional laboratories.
- The operators of equipment should participate in the training by the manufacture regularly.
- It is necessary to establish the system to feedback the result of monitoring to related stakeholders of food producing. Also, the system to share its information to consumers nationwide should be considered.
- It is necessary to establish the quality assurance unit independent from the analysis unit in every laboratory.
- It is necessary to have external quality control system.

<Others>

- Utilizing the output of this Project, Chile should spread the knowledge and techniques of the food safety to neighboring countries.