

## Summary

### 1. Outline of the Project

Country: People's Republic of China

Project Title: Project for Human Resources Development of Rehabilitation Professionals

Issue/Sector: Social security - Support for disabled

Cooperation Scheme: Technical Assistance Project

Division in Charge: Social Security Team, Group II, Human Development Department, JICA

Total cost: 700 million Japanese yen

Period of Cooperation (Duration):

(R/D): Five-year period of cooperation (November 1, 2001–October 31, 2006)

(Extended):

(F/U):

(E/N) (Aid)

Partner Country's Implementing Organization: China Disabled Persons' Federation; China Rehabilitation Research Centre

Supporting Organization in Japan: International University of Health and Welfare; National Rehabilitation Center for the Disabled; Japanese Physical Therapy Association; Japanese Association of Occupational Therapists

Related Cooperation: Grant Aid "Facility Planning for the Rehabilitation Research Center for Disabled Persons" (1985-1988); Project-type Technical Cooperation "Project on China Rehabilitation Research Center" 1986-1993

#### 1-1 Background of the Project

The number of occupational hazards and traffic accidents has been rapidly increasing in China, in line with the country's rapid economic growth and increase in industrial facilities and traffic volume, and it is reported that the number of disabled persons in China now reaches 60 million. With these circumstances in mind, the Regulations on Rehabilitation Management in General Hospitals were enacted by the Ministry of Health of China, which require that large-sized general hospitals establish rehabilitation departments and to hire physical therapists and occupational therapists. However, there is a notable shortage in rehabilitation workers, and there is an urgent need to foster rehabilitation workers and lecturers in charge of developing human resources.

The China Rehabilitation Research Centre (CRRC) was inaugurated in the late

1980s under the cooperation of China Welfare Fund for the Handicapped (now the China Disabled Persons' Federation) and the Japanese government, as a comprehensive institute engaged in clinical care, research and education in the field of rehabilitation. Thus, the basis for implementing the fostering of rehabilitation workers had been established. Although the CRRC has been actively providing technical training to rehabilitation workers throughout China, the education provided has proven inadequate, both in terms of quality and quantity, for the fulfillment of the demand for rehabilitation in China.

Thus, the CRRC and the China Disabled Persons' Federation (CDPF) requested that this project be implemented by the Japanese government in 1997, with a view to establishing a new training school for the CRRC. In response to this request, a five-year technical assistance project was initiated in November 1, 2001.

## 1-2 Project Overview

### (1) Overall Goal

To enable physical therapists (PT) and occupational therapists (OT) to render services throughout China.

### (2) Project Purpose

To develop high-quality PTs and OTs who receive four years of education in accordance with global standards

### (3) Project Outputs

1) To establish curricula for a four-year educational program for PTs and OTs in accordance with global standards

2) To develop instructors able to provide rehabilitation treatment

3) To improve the educational skills of instructors

4) To improve the level of educational management

5) To prepare educational materials and equipment

6) To implement the four-year education system

(4) Project Inputs (including scheduled inputs yet to be implemented but already scheduled for implementation prior to the end of the project)

Japanese side:

Dispatch of chief advisor: 14 persons in total

Long-term experts            2 persons

Short-term experts         23 persons in total

No. of trainees received in Japan 15 persons in total

Equipment supply            approx. 168,409,000 Japanese yen

Local cost                                approx. 1,025,000 yuan (approx. 15,181,000 Japanese yen)

Chinese Side:

Assignment of counterparts:        121 instructors, 26 educational management staff

Procurement of land and facility for the project:    1,125 square meter (2,532,000 yuan) in total, including multimedia classroom, laboratory, practical room, computer classroom, classroom for language and audio learning, electronic reference room, accommodations for students, office for experts

Personnel cost for management:    1,760,000 yuan

Other    550,000 yuan

6,559,000 yuan in total (approx. 97,071,000 Japanese yen)

## 2. Evaluation Team Overview

Members of the evaluation team

(Area in charge: name, title)

Team leader:

Hajime Watanabe

Team Director, Social Security Team, Group II, Human Development Department, JICA

Rehabilitation:

Masami Akai

Vice Director, National Rehabilitation Center for the Disabled

Human resource development:

Motoko Sugihara

Chair, Department of Occupational Therapy, International University of Health and Welfare

Evaluation planning:

Mariko Kinoshita

Social Security Team, Group II, Human Development Department, JICA

Evaluation and analysis:

Nobuyuki Kemmotsu

Senior Consultant, Chuo Kaihatsu Corporation

Interpreter:

Locally employed interpreter

Evaluation Period

From May 14, 2006 to May 27, 2006

### 3. Overview of Evaluation Results

#### 3-1 State of output achievements

##### (1) Output achievements

1) To establish curricula for four-year education program for PTs and OTs in accordance with global standards

The four-year curricula have already been prepared, based on curricula in other countries, including Japan, and on internationally recognized standards, and as such it is considered that Output 1 has been achieved.

2) To develop able instructors in the field of rehabilitation treatment

Although persons with master's degree and capable of teaching physical therapy and occupational therapy in universities were very limited in number prior to the commencement of the project, six persons have been trained in each area of physical therapy and occupational therapy covered by this project. This will increase the number of such persons with advanced education to nine in physical therapy and six in occupational therapy. Thus, it is considered that Output 2 has been achieved.

3) To improve the educational skills of instructors

Effective use of audio-visual educational materials is becoming common practice. Clinical training, for which even the concept did not previously exist, is also being implemented through the obtaining of advice from the Japanese experts. In conclusion, although it can be said that Output 3 has reached the intended level in terms of evaluation index, further strengthening is recommended. In particular, clinical training is a field with a low level of experience in China, and as such in clinical training for the current year's graduates, which represented the first time such training was implemented, the team of Japanese experts offered various sorts of instruction, such as how to divide students in groups and how to visit the training hospitals one by one. It cannot be expected that the necessary methods and know-how for clinical training could be established in China through a single trial, and therefore it is considered that continuous supervision by the experts will be necessary.

4) To improve the educational management level

As the classes are operated based on curricula and syllabi in general, it is considered that Output 4 is achieved. However, there are some cases where the classes are not operated in accordance with the syllabus. In addition, it is considered that improvement of the quality of education through adequate evaluation of teachers is necessary. Thus, it is considered that cooperation in the future will be necessary in some areas.

5) To prepare educational materials and instruments

19 exclusive textbooks on physical and occupational therapy, the first of their kind in China, have been completed. The necessary equipment and educational instruments have been sufficiently prepared. Thus, it can be said that Output 5 has been achieved. However, people who have actually used the textbooks have pointed out duplications and insufficiencies therein, so revisions are to be implemented at some point in future.

#### 6) To implement the four-year education system

In July of this year, 38 members of the inaugural class will graduate, and their job placement following graduation will also be determined. The number of applicants for entrance is exceeding the number of places. It is expected that this four-year education program will be implemented continuously into the future, consistently generating about 40 graduates a year. Therefore, it can be said that Output 6 has been achieved.

### (2) Project Purpose Achievements

The project aims to develop four-year education curricula for PTs and OTs in accordance with global standards, and employs the number of graduates and the quality of instructors as evaluation indexes. The project period is five years, and there were no graduates yet at the time of the evaluation; however, it is expected that 38 members of the inaugural class will graduate in the summer of 2006. Without any financial difficulties, it is expected that the four-year education system will be implemented continuously into the future as well. On the other hand, future cooperation will be necessary for some aspects of the system in terms of the quality of the education.

## 3-2 Summary of Evaluation Results

### (1) Relevance

In China, an increase in the occurrence of psychiatric disorders and traffic accidents is forecasted due to the rapid aging of the population and economic growth. Under such circumstances, the government's awareness of support for the disabled is increasing, and there is a strong demand for rehabilitation professionals. The Chinese government outlines its basic policy in the strategic target set in 2002 as "enabling all disabled persons to receive the necessary rehabilitation services by 2015." On the other hand, the country faces problems such as a shortage of rehabilitation professionals and insufficiency in terms of the quality and numbers of instructors in charge of providing training in the field of rehabilitation-related human resources, and this project aims to provide support in terms of fostering instructors, as well as deal with other issues.

In Japan, the General Framework for ODA and the Medium-Term Policy on

ODA was reviewed after the launch of the project, and its policy of placing further emphasis on human security issues was made clear. This project, which aims to develop human resources for the socially vulnerable, adheres to the idea of human security. Also, in the Economic Cooperation Program for China (October 2001), the Ministry of Foreign Affairs has established measures aimed at supporting socially vulnerable groups and human resource development, emphasizing these as priority areas and issues. This project is contributing to the promotion of the social rehabilitation of vulnerable groups, including disabled persons and the elderly, and as such it is considered that it is in line with the aforementioned trend.

Thus, it can be said that the project relevance has further increased since the time of the launch of the project, in consideration of the policy of the Chinese government as well as the new General Framework of ODA and the new Medium-Term Policy on ODA in Japan, formulated after the commencement of the project.

## (2) Effectiveness

### 1) Achievement of project purpose

Considering that it is expected that 38 members of the inaugural will graduate in the summer of 2006, and that the four-year education system will constantly generate graduates into the future as well, it is considered that the project's purpose is achieved. However, opinions have been voiced that the content of the education being provided and the quality and quantity of the instructors should be further strengthened.

### 2) Causal correlation (contribution of outputs in achieving the purpose)

Outputs obtained as a result of the project's activities (including the establishment of curricula, the development of educational equipment and materials and instructor training) have all contributed effectively to the achievement of the purpose.

Therefore, in general, it is considered that the project has been highly effective

## (3) Efficiency

All inputs from the Japanese and Chinese sides are being used effectively in the project activities and are contributing in producing outputs. Outputs are being achieved as planned for the most part, and the efficiency of the project is being ensured.

As for the amount, quality and timing of inputs, although some problems were pointed out in the Mid-Term Evaluation, such as delay in the delivery of some equipment and frequent changes of chief advisors (once every few months) due to

restrictions placed on the dispatch period for Japanese experts. However, remedial measures such as a comprehensive handover process and repeated dispatches were implemented, and as such there were no problems for the most part during the latter half of the project period.

#### (4) Impact

##### 1) Prospects for achievement of overall goal

Development of facilities and human resources will be essential in order to achieve the overall goal. The CDPF maintains a high level of enthusiasm in regards to the achievement of the overall goal and it is currently promoting the development of facilities and human resources in rural areas. Although the development of facilities is not directly related to the project, the upgrading of facilities is being actively implemented especially within the CDPF group.

On the other hand, a human resources development plan for the future has been outlined in the “Rehabilitation-related Human Resources Development Plan of the China Disabled Persons’ Federation 2005-2015.” Following the project results, it is expected that human resource development will progress further, with graduates being produced every year, contributing in the achievement of the overall goal. However, it is also expected that the smooth progress of human resource development and the specifics of human resource allocation in rural areas will henceforth become issues to be addressed. In addition, cooperation with rehabilitation facilities under the control of the Ministry of Health and the Ministry of Civil Affairs is crucial in order to disseminate rehabilitation in rural areas, and it will become necessary to ensure coordination between these organizations.

##### 2) Other ripple effects

The Chinese government is moving towards introducing a national certification system for rehabilitation therapists. More universities and vocational schools are starting to establish or reinforce courses related to rehabilitation medicine, wherein the curricula created through the project are being used as reference or educational material. Consequently, some positive ripple effects stemming from the project have been observed. However, the certification system is expected to cover only rehabilitation therapists, and there are still many uncertainties as to what kind of certification system will transpire. Therefore, it is still too early to evaluate the degree of the impact. No negative impacts are anticipated.

#### (5) Sustainability

#### 1) Political sustainability

The Chinese government is becoming strongly aware of rehabilitation for the disabled. In order to expand the School of Rehabilitation Medicine affiliated with the CRRC, the government has secured a site 200m west of the premises. The government is also making preparation for the introduction of a national certification system for rehabilitation therapists.

#### 2) Organizational sustainability

The CRRC is an organization directly affiliated with the China Disabled Persons' Federation, and already has nearly 20 years of history (since its establishment in 1988). As the largest modern rehabilitation facility for disabled people in China, it is considered that it possesses sufficient capability as a treatment and research institute. It is also positioned as a center for activities such as comprehensive rehabilitation for the disabled, research in rehabilitation-related science and technology, training of rehabilitation-related human resources, and the provision of comprehensive rehabilitation services. It serves a central role in the dissemination of rehabilitation medicine technology throughout China.

However, it only has a short history as a university education institute and it is desirable that its education management capacity be strengthened. There is also a necessity to constantly improve the syllabus, the training plan and the appointment of instructors for the time being.

#### 3) Financial sustainability

Rehabilitation-related treatment (clinical practice) is being steadily carried out by the CRRC, which is producing profits. Comparing the profit with the cost burden of the project, profit is larger. Therefore, it is considered probable that financial sustainability will be ensured.

The Chinese side made consistent efforts to secure the necessary budgetary resources during the project period, and there were no particular problems in terms of consumable goods for equipment, travel (accommodations) costs for counterparts, etc.

#### 4) Technical sustainability

The counterparts acquired knowledge and technical skills through this project, and sustainability in terms of rehabilitation skills has been ensured. However, individual instructors should continue to make an effort to bolster their own skill levels. Educational materials, including textbooks, should also be subject to regular reviews for improvement.

Also, while the CRRC acknowledges the necessity of educational management as an educational institute, it cannot be said that the center has achieved a thorough



comprehension of the education system, given that only one class of graduates has been produced to date.

Resources and equipments are being adequately managed without any problems in particular.

Considering all of the aforementioned aspects, it is considered that the level of sustainability is significantly high. However, the Chinese side should continuously make efforts in relation to strengthening in terms of education management in its capacity as an education institute.

### 3-3 Factors Contributing in the Production of Effect

(1) At the stage of implementation study prior to the inauguration of the project, recognition of the four-year curriculum for the training of rehabilitation professionals had yet to be obtained. However, the Ministry of Education sanctioned the establishment of an educational course in the School of Rehabilitation Medicine, Capital Medical University. It became possible to recruit students from September 2002 as a result of the early permission.

(2) Although not an actual element of the project, Japanese students implemented clinical education within the CRRC. This not only provided an occasion for instructors from the School of Rehabilitation Medicine to observe actual examples of clinical education, but also had the effect that the students came to be active in holding case report meetings and implementing degree-based research.

### 3-4 Problems and Factors that Raised Problems

In the spring of 2003, the project activities were interrupted for two and a half months due to the effects by SARS. The interruption occurred at a critical point wherein trainees in Japan for the first year were about to return to China and begin full participation in the project activities. It was a setback for the project and there was a delay therein. However, due to efforts made by those involved thereafter, the delay was overcome, and as a result, the project is progressing as scheduled for the most part.

### 3-5 Conclusion

This project achieved the concrete output of establishing a four-year education system for training professionals, and a system capable of training about 40 highly specialized personnel a year in the future is now more or less established. The most important factors in this success have been an excellent selection of project strategy and

adequate input and activities in accordance with the plan. This project established the basis for a four-year university program for training human resources who are to assume key roles in realizing the overall goal, namely “enabling PT and OT to render services throughout China.” This project is also considered as having yielded good results from the perspective of the five criteria of evaluation. However, although a four-year university was founded and the project purpose has been achieved, further improvement will be necessary in future. In particular, the quantity and quality of instructors are still insufficient, and educational affairs management must also be reinforced. By strengthening these aspects and by considering measures to develop and expand the outputs of the project nationwide, it is expected that further efforts and contributions will be made in order to achieve the overall goal.

### 3-6 Recommendations (Specific Measures, Recommendations and Advice on this Project)

In order to achieve further solid achievement of the project purpose and to achieve the overall goal, the following issues must be addressed.

#### (1) To obtain certification of international standards for curricula

The School of Rehabilitation Medicine is currently applying to the World Federation of Occupational Therapists (WFOT) for international standards certification for its OT curriculum, and the results are expected to come in this July. If it fails to obtain said certification, study of the reasons for the rejection must be made and the necessary measures taken.

Although the World Confederation for Physical Therapy (WCPT) does not have a certification system similar to the WFOT, it is desirable for the PT curriculum to obtain some kind of internationally recognized certification.

#### (2) To coordinate clinical services and education

Instructors of the university should be sufficiently prepared in advance before giving lectures and practical training instructions in order to ensure adequate education. However, all the counterparts are currently in charge of both clinical and educational work, which makes it difficult for them to ensure sufficient preparation time. There is also benefits in being in charge of clinical and educational works simultaneously, so this cannot be characterized as an outright defect; however, there is an adequate amount of the necessary coordination. While CRRC has a long history as a treatment institute, it has a rather short history as an educational institute, and its instructors are not particularly experienced, and as such it is necessary to take

measures aimed at coordination such as making significant time allowances for preparation in advance.

(3) To review educational materials

There are 19 exclusive textbooks that have been prepared and are being used in this project, and the questionnaire results show that the students are generally satisfied with them. However, many of the Japanese experts and counterparts have pointed out that “although they are adequate for the most part, there are a few problems therein, and as such they need to be revised, or additional preparation of textbooks needs to be made.” Duplications and insufficiencies became apparent through actual use, and so preparation for revision work must be initiated soon.

(4) To establish clinical training system

Clinical training under the supervision of clinical education instructors has been incorporated into the third and fourth years of the four-year education curriculum for PTs and OTs. This is a field wherein China has relatively little experience. During this project, support and intervention by Japanese experts were required in many areas, including the organization of classes and the appointment of students groups. In future, self-reliant operation in this term will be necessary.

(5) To construct an evaluation system to improve the quality of instructors

For the education of rehabilitation professionals, the acquisition of the application capability to respond to the various needs of disabled persons is necessary, in addition to systematic knowledge and skill acquisition. Thus, improvement of the contents of the education and educational method will be continuously necessary for instructors in such areas. It is recommended that the instructors, upon participating in the training program in Japan and returning to China, upgrade the contents (skill level) of their education and construct an evaluation system aimed at reinforcing the teaching capabilities of the instructors.

(6) To ensure sustainability and to take measures for the achievement of the overall goal

In order for the Chinese side to independently progress towards the achievement of the overall goal, it is necessary to further increase the quantity and quality of instructors and to strengthen the management of educational affairs. It is also necessary to expand the results of the project nationwide.

In order to further ensure sustainability for the project, it is necessary to

promptly consider specific measures aimed at establishing education in accordance with the curriculum as well as further improving the educational skills of the instructors, and implementing these measures, during the remaining duration of the project. The Chinese side has requested follow-ups (training of instructors and reinforcement of education management) over a two-year period. In response, the Japanese investigation team recommended that the CRRC, based on consultations with Japanese experts, summarize assistance needed from Japan during the period up to July 2007, when the current third grade students graduate, and submit the summary to the JICA China Office.

### 3-7 Lessons Learned (Matters Helpful for Discovering/Forming Similar Projects Derived from this Project and Implementation, Operation and Administration Thereof)

#### (1) Importance of educational affairs management

Under this project, the creation of curriculum, the development of educational materials and equipments and the training of instructors were all implemented during a relatively short period, and the newly founded four-year university program is now getting on track. On the other hand, there are concerns pertaining to weaknesses in educational affairs management. Upon the formulation of the project plan, the creation of curriculum, the development of educational materials and equipment, and the education of instructors were given adequate consideration. However, opinions have been voiced on both the Japanese and Chinese sides that prior discussions on educational affairs management might have been insufficient. It is necessary for projects aiming to establish a new university or university department to give sufficient consideration to the educational affairs management system in addition to the educational system itself.

#### (2) Clarifying the objective of training in Japan

One-year training stints in Japan were provided for six PTs and six Ots, who were among the candidates for instructors (counterparts) (in addition to two doctors and one prosthetist) in this project, which constituted an important measure for the training of instructors. The objective of this was to train instructors and have them acquire the knowledge and technical skills inherently necessary for instructors. However, because it was decided at the start of the project that it would be mandatory for instructors in four-year universities in China to have a master's degree or a higher degree, they were required to acquire a master's degree during the project period. Although it was a tough assignment to acquire master's degree during the project, in addition to earning 30

credits or more per year, it is expected that all twelve participants (including the two who are currently enrolled in graduate school) will acquire master's degrees thanks to the efforts of those involved.

However, earning credits for gaining master's degrees and preparing theses has proven excessively burdensome. Therefore, training in relation to educational work such as educational affairs management, operation of subjects and students guidance necessary for four-year university instructors, as well as teaching methods and faculty development for the improvement of teaching methods, could not be sufficiently carried out during the period of the training program.

It is important to set clear objectives for the training program in Japan, in consideration of the length of the training period, and to disseminate these objectives on both the Japanese and Chinese sides.