

## Summary of Terminal Evaluation

<b>I. Outline of the Project</b>	
Country: The Kingdom of Cambodia	Project title: Improving the Capacity of the National TB Control Program through implementation of the 2 <sup>nd</sup> National TB Prevalence Survey
Issue/Sector:	Cooperation scheme: Technical Cooperation Project
Division in charge: Human Development Department	Total cost (estimated at completion of the Project): approximately million yen
Period of Cooperation (R/D): From January, 2010 to January, 2013 (3 years)	Partner Country's Implementing Organization: Ministry of Health and National Center for Tuberculosis and Leprosy Control (CENAT)
	Supporting Organization in Japan: Japan Anti-Tuberculosis Association, The Research Institute of Tuberculosis
<b>1-1 Background of the Project</b>	
<p>TB control in Cambodia has made good progress since the 1990s by the National Centre for Tuberculosis and Leprosy Control (CENAT): the DOTS Strategy was adopted in 1994 and TB treatment services were initiated at referral hospitals at the county level. For TB patients at the peripheral level to have access to DOTS services, the service started to expand to the health centre level from 2000 until 2004, when TB treatment was available at more than 900 sites nationwide with a high-cure rate more than 85%. However, the prevalence rate of all forms of TB in 2008 in Cambodia was still as high at 664 per 100,000 population, making the country one of the 22 countries with a high burden of TB.</p> <p>The Japanese Government has started technical assistance for TB control in Cambodia through JICA since the early 1990s: JICA dispatched Japanese experts in TB laboratory and provides such equipment as microscopes. And then, it also started a comprehensive 10-year technical assistance project called "JICA/CENAT National TB Control Project" in 1999 to strengthen the capacity of National TB Control Program (NTP).</p> <p>The new project (hereafter "the Project") aims to further-strengthen the capacity of the NTP, through the implementation of the second national prevalence survey (hereinafter referred to as "the Survey") scheduled from 2010-2011. On the other hand, improvement of TB diagnosis especially on X-ray diagnosis, EQA for sputum film examination, expansion of the network for culture examination has been recognized as the most important issue for the TB control in Cambodia since the phase 2 project. Accordingly, the Project dispatched Japanese experts in the fields of advisor/TB control, coordinator/data management, epidemiology/statistics, X-ray diagnosis and bacteriological diagnosis in order to support the Survey, which demonstrated the changing TB epidemiology in developing countries. Case detection through symptoms, and sputum smear microscopy alone revealed limitations in current TB case finding strategy. To respond to the emerging issues, such as TB among the elderly, and the needs for X-ray exam for the high-risk asymptomatic populations, expertise and experiences retained in the TB control in Japan can be a useful resource, which should be utilized in the future TB control in developing countries. The Project established the system through preparation of the comprehensive protocol, implementation of the Survey, monitoring of the process, analysis of the data, and reporting of the results, aiming at development of a network for high-quality diagnosis. The Project held a workshop and presented the preliminary results of the Survey in February 2012. Subsequently, the Project will clarify the effectiveness of the internationally acknowledged DOTS strategy by comparing and analyzing the 1st and 2nd survey results in order to comprehensively evaluate the 10-year-long Cambodian TB control program under the cooperation by JICA.</p>	
<b>1-2 Project Overview</b>	
(1) Overall Goal TB morbidity and mortality are reduced.	
(2) Project Purpose Capacity of the National TB Control Program is strengthened through implementation of the National TB Prevalence Survey.	
(3) Outputs	
1) Research protocol development, planning, practice, monitoring, analysis, and reporting in the National TB Prevalence Survey are in place and the quality survey is carried out.	
2) Diagnostic network of the National TB Program based on quality bacteriological examinations is enhanced.	
(4) Inputs	
<u>Japanese side:</u>	
JICA Expert: A total of 59 short-term experts; Training in Japan: 5 C/Ps; Technical exchange in the third country: 3 C/Ps	
Provision of equipment: A total of 15.0 million yen plus 7.6 million yen (carry-over equipment)	
Japan's cost expenditure: 81 million yen	

<b>Cambodian side:</b>		
Counterpart: A total of 71 persons (CENAT); Local Cost: lighting and heating expenses, personnel costs The Survey: a total budget of 1.1 million USD (GF: 30-40%, USAID: 5%, the remaining: JICA) Provision of land and facilities: Office space for Japanese experts (in CENAT)		
<b>2. Evaluation Team</b>		
Members of Evaluation Team	1) Team Leader: Ms. Saeda MAKIMOTO, Director, Health Division 3, Health Group 2, Human Development Department, Japan International Cooperation Agency (JICA) 2) TBControl: Dr. Katsunori OSUGA, Medical Officer, Stop TB & Leprosy Elimination, WHO/WPRO 3) Evaluation Analysis: Dr. Yoshihito KASHIWAZAKI, A & M Consultant, Ltd. 4) Cooperation Planning: Ms. Miho KYOGUCHI, Program Officer, Health Division 3, Health Group 2, Human Development Department, JICA	
Period of Evaluation	From 1st July 2012 to 21st July 2012	Type of Evaluation: Terminal
<b>3. Results of Evaluation</b>		
<b>3-1 Achievement (Output)</b>		
<b>Output 1:</b> The achievement levels of the 4 indicators are more than expected in the first three cases (1-1 to 1-3) and it is expected that all the indicators for Output 1 will be achieved until the end of the Project as the activities progress further.		
<b>Output 2:</b> The achievement levels of the 5 indicators are more than expected in the most cases and it is anticipated that all the indicators for Output 2 will be achieved at very satisfactory levels until the end of the Project as the activities progress further.		
Indicator 2-1: The overall contamination rate is 4.5% and the recovery rate was 87.6%, which are over the target rates.		
Indicator 2-2: The percentage of the acceptable laboratories by EQA was 86.0%, which was over the target.		
Indicator 2-3: The proportion of acceptable X-ray films was about 80%, which was below the target rate, however, the quality has been improved and the rate in the model areas (94.1%) exceeded the target.		
Indicator 2-4: Trainings on quality assessment of chest radiography have already been held several times on different occasions, which satisfied the indicator.		
Indicator 2-5: A total of three technicians had the panel test and satisfied the criteria set by the WHO for INH and RFP, therefore, the indicator was achieved.		
<b>(Project Purpose)</b>		
As a comprehensive conclusion, the Project Purpose is to be achieved at satisfactory levels by the end of the Project.		
<b>Indicator 1)</b> “All components of Stop TB Strategy are carried out with high quality.”		
The skills and outcomes obtained through the project activities for the Survey have contributed to the following six components of Stop TB Strategy, therefore, Indicator 1) was regarded to be achieved.		
<b>Indicator 2)</b> “TB Control Program activities are carried out based on the Survey results.”		
The preliminary results of the Survey were presented in a report and at workshop, and the analysis has been on going. Some post-survey activities are on going in parallel with finalization of the Survey results and the revision of the current control strategy is still under discussion but it is definite that the results of the Survey contribute to update or the new strategy for 2013-2020 as well as the coming Annual Operational Plan. Thus, Indicator 2) is expected to be achieved by the completion of the Project considering the current situation.		
<b>3-2 Factors that helped the implementation of the Project</b>		
(1) Technical assistance through the Project		
The Project dispatched the same experts repeatedly, which produced a positive follow-up effect on learning process of techniques.		
(2) Project Management		
Several C/Ps who experienced the 1st prevalence Survey in 2002 are still working in CENAT and took a leading role in the 2nd Survey last year. A structural management system was established for the Survey and readily improved the implementation process of the activities.		
(3) Partnership with others		
The aid agencies such as JICA, WHO and USAID are the partners of CENAT, which comprises the NTP. Each agency has its own direction and discipline, however, the donors have also established good relationships and effectively complemented each other for the control of TB in Cambodia.		
<b>3-3 Factors that impeded the implementation of the Project</b>		
Any major inhibition factor has not been acknowledged.		

### **3-4 Summary of Evaluation Results**

#### **(1) Relevance: High**

The Project Purpose appears to correspond to the needs of the people of Cambodia and to be highly consistent with policies of the Government of Cambodia. One of the goals of Japan's Global Health Policy for achievement of MDGs is to strengthen support for fighting AIDS, TB and malaria, and Cambodia is one of the priority countries in JICA's Thematic Guideline for TB. Accordingly support for TB control in Cambodia is still relevant with the assistance policy of Japan. In addition, the assistance was even consistent and beneficial for and with global policy.

#### **(2) Effectiveness: High**

The Project Purpose has mostly been achieved. Output 1 is for implementation of the 2nd prevalence survey while Output 2 for establishment of diagnostic network. The logic that the Output 1 and the Output 2 will result in achieving the Project Purpose is considered to be appropriate. The appropriate design and planning of the Survey by the Project were regarded as the most significant factor to lead the Survey into success.

#### **(3) Efficiency: High**

All the activities set in the PDM were carried out except Activities 1-10-3, 1-10-4, 1-12 and 2-4, which are the ones based on the Survey results and will be implemented towards the end of the Project. No major delay on the project activities was observed. The equipment provided through the Project is mostly basic and suitable for the local conditions, utilized for the prevalence survey, still frequently used and maintained in a good condition. The budget of the Project was a half of the one for the phase 1 project, nevertheless, the Project implemented the national prevalence survey as in the phase 1 project and a considerable amount of outputs has been produced.

#### **(4) Impact: Very High**

##### **1) Prospect of achieving the Overall Goal**

The Overall Goal is likely to be achieved in the near future. For Indicator 1), the mortality rate has already been reduced by over 50% and the target for the morbidity rate has nearly been achieved. Moreover, it is speculated that Indicator 2) as well be achieved if the present activities of the NTP can be maintained.

##### **2) Other Impacts**

The following positive impacts have been observed.

- As the first case of the prevalence survey carried out twice with 8-year interval, the Project clearly demonstrated the importance of the Survey as an effective tool for impact measurement in TB control.
- The Project facilitated international collaboration especially between South-South through sharing experiences of Cambodia with other countries such as Laos and Ethiopia, and through technical meeting in WHO, Geneva.

#### **(5) Sustainability**

##### **1) Political aspect: High**

The TB control is one of the major national strategies for Cambodia and has already been well documented legislatively. There is no doubt that the Cambodian policy on TB control will not be altered in the near future as the National Health Strategic Plan for TB Control 2016-2020 will be developed based on the Survey results.

##### **2) Organizational aspect: High**

The CENAT has been taking a leading role in the NTP for a long time under the support of international agencies including JICA, therefore, its institutional system and capacity have been well developed. The C/Ps, who just followed the instructions from experts during the 1st survey in 2002, became actively involved in the 2nd survey taking a leading role. Certainly, the capacity of the C/Ps has been improved and became confident in their services.

##### **3) Financial aspect: Uncertain**

The NTP heavily relies its budget on the development partners, of which Global Fund Round 7 shares 40 %, USAID 30-40%, the government of Cambodia around 10% and the rest is covered by JICA and other development partners. Such a financial situation does not seem to be improved in the near future. The infectious diseases usually flare-up once the control measures are stopped, therefore, it is very important to secure the budget for continuation of the control activities.

#### **4) Technical aspect:** Satisfactory except certain technical areas

The implementation of EQA utilizing technical follow-ups and OJT has played a key role on improvement of the quality of techniques. Probably, the staff of CENAT can carry out the operational researches, however, may not be completely confident in designing them. On that account, further supports will be necessary for response to emerging issues and establishment of the techniques transferred through the Project.

#### **3-5 Conclusion**

The team made the following conclusions:

- (1) The 2nd National TB Prevalence Survey was successfully carried out following the international standard. The preliminary survey results have shown a significant reduction in TB burden in the country, suggesting that TB control is on track to achieve MDG target set for 2015. This great achievement is attributed to the successful implementation of DOTS by the NTP.
- (2) However, Cambodia ranks the second highest in TB prevalence rate among the 22 high TB burden countries. The preliminary results of the Survey have also revealed issues and challenges such as high burden of TB among the elderly and asymptomatic populations. The NTP will need to tackle these in TB control.
- (3) The Survey has been highly acknowledged by the WHO Global Task Force on TB Impact Measurement. Throughout the process of the Survey, close communication and coordination between the Project and WHO was maintained. The Survey has significantly contributed to the global TB impact measurement by providing a model, and sharing experiences with other countries in the world.
- (4) In addition to the successful organization of the Survey, the process of the Survey itself, throughout planning, implementation, and analysis of the Survey results, has strengthened the capacity of overall TB control activities, such as logistics, quality assurance, time and resource managements and coordination.

#### **3-6 Recommendations**

Both sides recommended as follows.

- (1) The Project should finalize the following documentations and the planned activities in the remaining period.
  - NPS final report
  - i) A guiding document on chest radiography compiling the experiences of the activities in the model area
  - ii) Operational research report
  - iii) Laboratory training modules for smear, culture and DST examinations
  - iv) Presentation on NPS result at international conference
  - v) Assistance for the remained laboratory technician to pass the panel test for DST
- (2) The NTP should make effort to take action following points.
  - i) Reflection of the 2nd NPS results to the current and next National TB Control Strategies and annual operational plans
  - ii) Implementation of operational research and pilot activities to tackle emerging issues such as elderly and asymptomatic TB
  - iii) Strengthening human resources for conducting quality operational research
  - iv) Mobilization of financial resources through advocacy to the policy makers and Development Partners

#### **3-7 Lessons Learned**

Among several components of the successful implementation, following points were extracted as lessons learned.

- (1) In addition to providing scientific evidence, implementation of a large-scale study, such as the prevalence survey carried out in Cambodia, which requires high-quality organizational skills for preparation, execution, analysis, and time management, is believed to facilitate capacity development.
- (2) Large-scale activities, such as the prevalence survey this time, cannot be successfully carried out without coordination among development and local partners. It is crucial to maintain close communication and collaboration among the key stakeholders for the timely management of all the essential components of the activities, including resource mobilization.

The Survey through the Project, demonstrated the changing TB epidemiology in developing countries. Case detection through symptoms, and sputum smear microscopy alone revealed limitations in current TB case finding strategy. To respond to the emerging issues, such as TB among the elderly, and the needs for X-ray exam for the high risk asymptomatic populations, expertise and experiences retained in the TB control in Japan, can be a useful resource, which should be utilized in the future TB control in developing countries.