

Islamic Republic of Afghanistan

FY2019 Ex-Post Evaluation of Technical Cooperation Project

“Tuberculosis Control Project” and “Tuberculosis Control Project Phase 2”

External Evaluator: Mari Nishino, TAC International Inc.

0. Summary

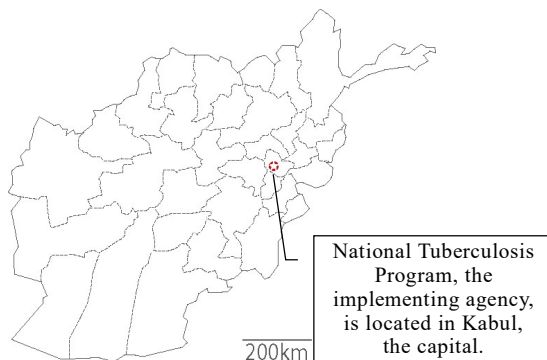
The projects¹ were implemented aiming at reducing the prevalence rate and mortality from tuberculosis, that is to achieve the Afghanistan Millennium Development Goals (MDGs) and reduce the burden from tuberculosis, by conducting tuberculosis tests including multidrug-resistant tuberculosis and performing high-quality Direct Observed Treatment Short-course (DOTS) nationwide in Afghanistan through strengthening the program management capacity of National Tuberculosis Program (NTP).

The objective of the project is consistent with development policy and the development needs of the country and Japan’s assistance policy for Afghanistan. Therefore, the relevance is high. In the “Tuberculosis Control Project” (hereinafter referred to as “Phase 1”), the capacity of NTP was strengthened, the inspection system was established nationwide, and the treatment system based on DOTS was established. In the “Tuberculosis Control Project Phase 2” (hereinafter referred to as “Phase 2”), NTP’s program management capacity was strengthened, a multidrug-resistant tuberculosis testing system was established, and services for local residents, refugees and prisoners suffering from tuberculosis were strengthened. Therefore, the project purpose was mostly achieved. Although it is difficult to show the causal relationship numerically between the achievement status of the overall goal indicators, “to reduce prevalence rate and mortality from tuberculosis,” and the project, the achievement of the project purpose has contributed to the reduction of the burden on patients and to the achievement of the overall goal to some extent. Therefore, the effectiveness and impact of the project are fair. Both the project cost and the project period exceeded the plan. Therefore, efficiency of the project is fair. No major problems have been observed in the policy background and the institutional/organizational, technical, financial aspects. Sustainability of the project effects is high.

In light of the above, this project is evaluated to be satisfactory.

¹ The term “projects” refers to the two projects to be evaluated in this ex-post evaluation.

1. Project Description



National Tuberculosis Program, the implementing agency, is located in Kabul, the capital.



Project Location

(The target area was the whole country)

Procured high pressure steam sterilizer

1.1 Background

As of 2003, Afghanistan had one of the worst health conditions in the world after a 23-year civil war. Infectious diseases were the leading cause of death in Afghanistan with tuberculosis accounting for a large proportion at that time. About 70,000 tuberculosis cases occurred annually, and the death toll by tuberculosis was estimated to be 23,000 annually. Upon request from the Afghan government, JICA implemented the technical cooperation project “Tuberculosis Control Project” (2004–2009). Through strengthening the capacity of NTP, an organization of the Ministry of Public Health that promotes tuberculosis control, the purpose was to make the high-quality tuberculosis treatment service available using DOTS nationwide.

Although it was confirmed that the target of Phase 1 was generally achieved in the Terminal Evaluation, the provision of more standardized and high-quality services to all the people of Afghanistan remained as a challenge. Furthermore, new challenges emerged including multidrug-resistant tuberculosis caused by discontinuation of treatment among tuberculosis patients and incorrect prescription by doctors, Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) and tuberculosis coinfections, and childhood tuberculosis. With this background, the “Tuberculosis Control Project Phase 2” was implemented from 2009 to 2015 including a one-year extension based on the results of Phase 1 to respond to these new challenges.

1.2 Project Outline

		Tuberculosis Control Project	Tuberculosis Control Project Phase2
Overall Goal		Mortality and morbidity caused by tuberculosis are reduced nationwide in Afghanistan.	To reduce the burden of tuberculosis in Afghanistan in line with Millennium Development Goals (MDGs).
Project Purpose		Quality tuberculosis control services through the DOTS strategy are available nationwide in Afghanistan.	Tuberculosis control services through the Stop Tuberculosis Strategy are available and managed by NTP nationwide in Afghanistan.
Outputs	Output 1	NTP's organizational, institutional and functional capacities are strengthened.	NTP's organizational, institutional and functional capacities are strengthened to provide quality tuberculosis control services nationwide through the Stop TB strategy.
	Output 2	A model of quality tuberculosis control services through the DOTS strategy is established in selected areas.	Bacteriological examination including direct sputum smear microscopy (SS test), culture test, and Drug Susceptibility Test (DST) on tuberculosis control is performed within expected quality level throughout the country.
	Output 3	Quality laboratory network of sputum smear microscopy with External Quality Assurance (EQA) system is established.	
Total cost (Japanese Side)		715 million yen	635 million yen
Period of Cooperation		September 2004–September 2009	October 2009–September 2015 (extended period: October 2014–September 2015)
Target Area		Nationwide in Afghanistan	
Implementing Agency		National Tuberculosis Control Program, Ministry of Public Health	
Other Relevant Agencies/ Organizations		None	

Consultant/ Organization in Japan	The Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association	None
Related Projects	<p>[Technical cooperation]</p> <ul style="list-style-type: none"> • Tuberculosis Control Project Phase 3 (2015–2019) • Thematic training: Stop Tuberculosis Action Training <p>[Grant aid project]</p> <ul style="list-style-type: none"> • The Project for Construction of Hospital for Communicable Disease (February 2011) • The Project for Supply of Anti-Tuberculosis Medicines and New Diagnostics Kits and for Monitoring the Implementation of Shorter Multi Drug Resistant Tuberculosis Regimen via World Health Organization (WHO) (2020–2023) <p>[Other international organizations]</p> <ul style="list-style-type: none"> • United States Agency for International Development (USAID): Tuberculosis Control Assistance Program (2005–2010) • Global Fund to fight against AIDS, Tuberculosis and Malaria (GFATM): Reinforcing the Round 8 Program (2009–2013) • WHO: Stop Tuberculosis (2009–2012) 	

1.3 Outline of the Terminal Evaluation

1.3.1 Achievement Status of Project Purpose at the Terminal Evaluation

In both Phase 1 and 2, the project goals were largely achieved at the Terminal Evaluation. For Phase 1, the target values for treatment success rate and patient detection rate were achieved and maintained. For Phase 2, it was confirmed that the organizational capacity of NTP was strengthened by the introduction of a new initiative, the 6-month-treatment plan, at the national level and activities targeting high-risk social groups of tuberculosis infection such as women, children and refugees through promoting NTP's ownership by the project. In addition, by improving the environment of regional reference laboratories, inspection technology was improved, networks among laboratories have been established, and the quality of tuberculosis examination has improved on a nationwide scale. On the other hand, some challenges remained to further expand and improve the quality of tuberculosis control at the national level. NTP still needed assistance from the project in terms of both business and financial management, and therefore, capacity building was still necessary.

1.3.2 Achievement Status of the Overall Goal at the Terminal Evaluation (Including other impacts.)

In Phase 1, the project was making progress toward achieving the overall goal, but it was difficult to judge the achievement status because the credibility of the data, the basis for calculating the prevalence rate etc. were low. In Phase 2, the achievement status at the time of the Terminal Evaluation was also unknown since the tuberculosis prevalence

survey was not conducted at the national level. NTP planned to conduct a national tuberculosis prevalence survey by 2020, and its result was expected to show the achievements.

1.3.3 Recommendations from the Terminal Evaluation

Following recommendations were posed from the Terminal Evaluation.

< Main recommendations of Phase 1 >

Recommendations during project period	<ol style="list-style-type: none"> 1) Strengthen NTP leadership and management capabilities to operate effectively. 2) Improve the quality of data on tuberculosis control by improving the accuracy of recording and reporting (or collect data such as the number of potential tuberculosis and tuberculosis positive rate). 3) Develop Standard Operating Procedure (SOP) for a smear transport system that transports and inspects sputum collected at the Basic Health Center (BHC) to the Comprehensive Health Center (CHC) level. Create and strengthen the laboratory network to expand access. 4) Invest more human resources and strengthen the ability to carry out culture tests through on-site practical training at the National Tuberculosis Institute² (NTI). 5) Invest more human resources and realize the introduction of DST (to detect drug-resistant patients).
Issues that should be started during the project period and should be continuously addressed in Phase 2.	<ol style="list-style-type: none"> 1) Strengthen the capacity of program management of NTP (planning, budget management/execution, implementation, monitoring/evaluation, improvement). 2) Tackle with the nationwide expansion of community DOTS, Kabul urban DOTS, support for vulnerable groups, drug-resistant tuberculosis, etc. regarding the provision of high-quality tuberculosis control services. 3) Strengthen the capabilities of laboratories nationwide and NTI. 4) Strengthen the EQA system by improving its quality. 5) Strive to improve the ability to carry out culture tests and DST.

<Main recommendations of Phase 2> (All of the following points were supposed to be dealt with by the end of the project)

<ol style="list-style-type: none"> 1) NTP should establish an organizational structure such as personnel as a responsible body of fund receiving in GFATM's 10th program and carry out planning and implementing activities. 2) NTP/Ministry of Public Health should establish an organizational structure such as personnel so that project and financial management as a responsible body of fund receiving in the 10th program will be carried out accurately. 3) The project should promote the implementation of EQA nationwide and strengthen quality control for culture inspections in order to ensure the quality of tuberculosis control.
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² NTI was unified with NTP at the end of Phase 1.

- 4) The project should promptly set up a National Reference Laboratory (NRL) in the Communicable Disease Hospital constructed by the grant aid project and start improving the quality of the slide transfer system.
- 5) It is necessary to resume DST-related activities that have been suspended due to the evacuation of experts. It is needed to discuss what measures can be taken.
- 6) Activities related to strengthening public-private partnerships including monitoring public-private partnerships and establishing focal points should be included in the proposal for the transition to the new GFATM funding model.
- 7) The project should consider whether to include the management of community DOTS in the funding application content of the new GFATM funding model. For effective implementation of community DOTS, it should be considered the analysis of facts and incentives of community and joint promotion with the Community Based Health Department of the Ministry of Public Health.
- 8) The Ministry of Public Health and NTP should promote budget increases to ensure the sustainability of tuberculosis control programs.
- 9) In order to further strengthen the program management capacity of NTP, the project period should be extended for half a year to support the following points proposed. Appropriate management of funds in the new GFATM funding model, improvement of digital X-ray technic and establishment of tuberculosis screening system, strengthening of detection system for multidrug-resistant tuberculosis patient, determination of intervention method for female tuberculosis patients.
- 10) Since the Communicable Disease Hospital has been operated since January 2014, the project should effectively utilize it including tuberculosis testing and multidrug-resistant tuberculosis treatment.

2. Outline of the Evaluation Study

2.1 External Evaluator

Mari Nishino, TAC International Inc.

2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

Duration of the Study: September 2019–July 2021

Duration of the Field Study: Due to the spread of COVID-19 and the security concerns, the evaluator did not travel and conducted a remote study in cooperation with local consultants.

2.3 Constraints during the Evaluation Study

Due to restrictions on travel to Afghanistan for security reasons, the external evaluator conducted questionnaires and interview surveys to the implementing agency and related parties to collect information coordinating remotely with local consultants based in Afghanistan while not conducting field study by the evaluator. Therefore, the quantity and quality of information and data were restricted because the evaluator could not directly observe the outputs, etc. on site. In addition, there were some project sites that even local consultants could not investigate due to security restrictions and

movement restrictions caused by COVID-19. The information was supplemented by utilizing the reports of Phase 3, the successor project, and the literature available on the internet.

3. Results of the Evaluation (Overall Rating: B³)

3.1 Relevance (Rating: ③⁴)

3.1.1 Consistency with the Development Plan of Afghanistan

At the planning period of Phase 1, the Ministry of Public Health of Afghanistan regarded the reduction of infectious diseases including tuberculosis as the highest priority development issue and implemented a basic health strategy. The Ministry of Public Health also formulated a three-year medium-term strategy to reduce the prevalence of and mortality from infectious diseases such as tuberculosis. The Target 11 of Afghanistan MDGs⁶ stated that “the prevalence and mortality of tuberculosis should be halved by 2020,” so that tuberculosis control was a priority issue at the times of completion of Phase 1 and the planning of Phase 2. In addition, the *National Tuberculosis Control Program Strategic Plan (2006–2010, 2009–2013)* in line with the goals of the MDGs and Stop Tuberculosis Partnerships, were aiming for the provision of high-quality tuberculosis control services through DOTS. The Afghanistan MDGs were effective at the completion of Phase 2, and the *Afghanistan National Health Policy 2015–2020* also mentioned the importance of public health interventions to the prevention and control of infectious diseases including tuberculosis.

Therefore, both Phase 1 and Phase 2 were in line with the development policies at the time of planning and completion.

3.1.2 Consistency with the Development Needs of Afghanistan

At the planning of both Phase 1 and Phase 2, Afghanistan was included in the 22 countries with the High Burden Countries of tuberculosis in the world.⁵ The NTP lacked human resources to formulate and implement measures nationwide, and it was not well organized. NTP has set the DOTS strategy promoted by WHO, but as of June 2003, only 120 out of 1,038 health centers nationwide had introduced DOTS. The limited expansion of DOTS was an issue. The patient detection rate was only 21% of all expected patients. The treatment success rate by DOTS was estimated to be 16%,⁶ which was far from the target of 85%. Although early diagnosis and treatment by conducting sputum tests for

³ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁴ ③: High, ②: Fair, ①: Low

⁵ WHO designated the top 22 countries with the highest estimated number of patients as High Burden Countries. WHO Global Tuberculosis Control, WHO Report 2000

⁶ WHO Global Tuberculosis Report 2004

smear-positive patients, who would spread infection, was necessary, the technics for sputum smear testing were not fully widespread. At the time of Phase 2 planning, it was necessary to further strengthen the capacity of NTP and strengthen measures to prevent the spread of multidrug-resistant tuberculosis for which multiple drugs were ineffective due to treatment interruption or incorrect drug prescription. In addition, it was necessary to strengthen measures for women, children and refugees who did not have sufficient measures against tuberculosis. At the completion of Phase 2, the prevalence of tuberculosis was 189⁷ (per 100,000 population) showing no improvement from 161⁸ at the time of Phase 2 planning. It was estimated that 3.7% of new tuberculosis cases in 2013 were multidrug-resistant tuberculosis, and 20% of re-treated tuberculosis cases were also multidrug-resistant tuberculosis. It was estimated that 820 cases of new pulmonary tuberculosis and 460 cases of retreated pulmonary tuberculosis were multidrug-resistant tuberculosis.⁹

Therefore, both Phase 1 and Phase 2 met the development needs at the time of planning and completion.

3.1.3 Consistency with Japan's ODA Policy

At the time of Phase 1 planning, Japan had announced that it would focus on supporting the following areas: reconstruction of the regional community, the removal of landmines and unexploded ordnance, education, health and medical care, media, infrastructure, and women's empowerment at the International Conference on Reconstruction in Afghanistan in 2002.¹⁰ The Basic Research Team from JICA set the infectious disease control including tuberculosis as one of the priority issues in supporting the health sector in Afghanistan. At the time of Phase 2 planning, among the four priority areas of support for Afghanistan, JICA had announced that it would contribute directly to “infectious disease control focusing on tuberculosis” through assistants from the viewpoint of human resource and capacity development. Additionally, JICA expressed that it would continue strengthening of support in the priority areas including education and health care in the “4th Afghanistan Economic Cooperation Policy Conference” in 2009.

Therefore, both Phase 1 and Phase 2 were in line with Japan's ODA policy at the time of planning.

⁷ WHO Global Tuberculosis Report 2014

⁸ WHO Global Tuberculosis Report 2009

⁹ WHO Global Tuberculosis Report 2014

¹⁰ Ministry of Foreign Affairs Official Development Assistance Country Data Book FY2002 Afghanistan https://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/kuni/02_databook/ckt/top_ckt.html

As stated above, this project was highly relevant to Afghanistan’s development plan and development needs, as well as Japan’s ODA policy. Therefore, its relevance is high.

3.2 Effectiveness and Impact¹¹ (Rating: ②)

3.2.1 Effectiveness

3.2.1.1 Achievement of Project Purpose (Project Output)

<Phase 1>

The project purpose of Phase 1 was that “quality tuberculosis control services through the DOTS strategy are available nationwide in Afghanistan.” It was expected to be achieved through strengthening the organization, institution and functions of NTP (Output 1), building a high-quality DOTS model in the model area (Output 2) and introduction of EQA and building SS Test laboratory networks (Output 3). Phase 1 strengthened the NTP’s capacity to some extent: inspection engineers were trained in SS Test training conducted by NTP and SOPs and inspection manuals were developed. In addition, the Phase 1 made posters and carried out awareness-raising activities in collaboration with the educational sector. Moreover, it expanded EQA nationwide and built a system for quick guidance. In Phase 1, all the planned project activities were implemented. As shown in Table 1, Indicator 1 was achieved, but it was difficult to judge Indicator 2. However, the project purpose was regarded as achieved as a whole based on the fact that all activities were carried out smoothly and the outputs were mostly achieved.

Table 1. Achievement of Project Purpose (Phase 1)

Project purpose	Indicator	Actual
Quality tuberculosis control services through the DOTS strategy are available nationwide in Afghanistan.	1. Achieve and maintain a treatment success rate of 85% in the areas covered by tuberculosis control services through the DOTS strategy.	According to the Terminal Evaluation report, the treatment success rate was 84% in 2001, and it has maintained 85% or more since 2002. However, regional differences were pointed out, such as 78% in the central region including Kabul, 89.5% in the insecure southeastern region, and 90% and more in other regions. Overall, it was maintained at 85% or more, and therefore, the indicator was achieved.
	2. Achieve and maintain a patient detection rate of 70% in the areas covered by tuberculosis control services through the DOTS strategy.	The detection rate was the 10% level from 2001 to 2004 and the 30% level from 2005 to 2006. It reached 71% after 2007 and maintained 73% in 2008 (at the time of completion). However, the reliability of the data was pointed out. The estimated number of patients (smear-positive patients) was previously estimated to be 150 per 100,000, but it was reduced to 76 per 100,000 in 2006 and then to 73 in 2007. These changes were

¹¹ Sub-rating for Effectiveness is to be put with consideration of Impact.

		based on the results of a small prevalence survey conducted by an international non-governmental organization (NGO) in 2006. Although the patient detection rate increased to 70% (2007) and 73% (2008), the actual number of detection cases were decreased to 28,760 (2007) and 28,301 (2008) in the reports of NTP. There are doubts about the credibility of the data for judging the achievement of the project purposes, and it is difficult to evaluate based on such indicators only. Therefore, it is difficult to judge the degree of achievement of this indicator.
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<Phase 2>

The project purpose of Phase 2 was that “tuberculosis control services through the Stop Tuberculosis Strategy are available and managed by NTP nationwide.” It was expected to be achieved through the strengthening of organization and functions of NTP to provide quality tuberculosis control services through the Stop Tuberculosis Strategy (Output 1), and bacteriological examination, including direct high-quality SS, culture tests, and Drug Susceptibility Test (DST), was performed throughout the country (Output 2). Table 2 shows the degree of achievement of the project purpose.

Table 2. Achievement of Project Purpose (Phase 2)

Project purpose	Indicator	Actual
Tuberculosis control services through the Stop Tuberculosis Strategy are available and managed by NTP nationwide in Afghanistan.	1. NTP will be able to take initiatives in planning and implementation of the tuberculosis control program.	At the end of the Terminal Evaluation, NTP has increased its organizational capacity and initiative to comprehensively implement tuberculosis control. The support by the project has improved NTP's ability to develop long-term strategic and annual activity plans as well as to prepare proposals to secure external funding to some extent. The project implemented a technology transfer of the project and financial management to NTP. Thus, it was approved that NTP would be the primary responsible agent for receiving funds during the extension of the 10th GFATM program. However, continuous support was needed for the capacity building of logical documentation and its reporting and financial management. Therefore, the indicator was generally achieved.
	2. Tuberculosis control service, in accordance with the ‘International Standards of Tuberculosis Control Service,’ set by WHO, will be available for all in any situation, including refugees and people living in the rural areas, in Afghanistan	<ul style="list-style-type: none"> • Strengthen measures for refugees, prisoners and women Activities for high-risk tuberculosis groups such as refugees and prisoners were highly regarded, which led to plans to expand measures for refugees to five provinces. Similarly, a survey was conducted on the factors that cause tuberculosis in women, and it contributed to the formulation of interventions. Though the actual intervention

		<p>(preventive medication to high-risk pregnant women) was not implemented with discretion, it provided further evidence for the intervention.</p> <ul style="list-style-type: none"> • Improved access for local residents <p>The slide transport system made it possible to build and improve the transporting system for fixing specimens at the Basic Health Centers (BHC), far away from the diagnostic center, and transporting them to the diagnostic centers. Due to security and geographical restrictions, it was implemented in 23 out of 34 provinces. The effect of the system was highly evaluated such as about 200 cases of tuberculosis positive were diagnosed in the quarter. It increased access to tuberculosis testing and treatment for rural residents.</p> <ul style="list-style-type: none"> • Raising awareness of residents <p>Regarding health promotion in the community, NTP staff, who had no knowledge about health promotion at the start of Phase 2, started activities with technology transfer from Japanese experts. Issues on both the community side and the medical staff side became clear, such as refraining from consultation due to discrimination against the infected person including women. There were some cases where the community members were persuaded to receive consultations after the project conducted training for them. The NTP, to whom the technology was transferred, conducted training independently in Waldak Province.</p> <ul style="list-style-type: none"> • Community DOTS <p>Although community DOTS was carried out by various NGOs, the performance depends largely on the capabilities of each NGO. In addition, community DOTS, with performance-based incentives for community health workers were only implemented in limited areas. Therefore, it was judged that there were still challenges with the nationwide expansion of community DOTS at the end of the Terminal Evaluation. NTP considered incentives for community health workers and submitted measures after the Terminal Evaluation.</p> <p>All of these activities were in line with the Stop Tuberculosis Strategy and have contributed to the expansion of the international standard level of tuberculosis control services in Afghanistan. However, measures for refugees and prisoners and health promotion activities did not achieve the national expansion as stated in this indicator. But in view of the initial capacity of NTP and the contents of the activities implemented, this indicator was considered to be generally achieved.</p>
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Based on the above, both Phase 1 and 2 mostly achieved their purposes at the time of project completion.

3.2.2 Impact

The following impacts have been observed after confirming the project effects of project outputs and project purpose during the period between project completion and ex-post evaluation.

(1) Strengthening the organization, institution and functions of NTP

Through the cooperation of Phases 1, 2 and 3, the capacity of NTP was strengthened. At the time of the ex-post evaluation, technical support for logical document preparation was still necessary according to the Chief Advisor of Phase 3. However, NTP were able to manage the preparation of applications for external funding and the formulation of national plans for tuberculosis control.

(2) Establishment of high-quality DOTS models

The treatment success rate of Kabul, one of the model areas in Phase 1, was as low as 57% (2007) compared to the target of 85%. The rate has improved as follows: According to the research paper by G. Qader et al.,¹² co-authored by NTP, it was reported that comprehensive measures of DOTS in Kabul improved significantly between 2009 and 2015. Specifically, the number of DOTS facilities in Kabul increased from 22 to 85, and approximately 25,000 patients were registered and treated during the period. The detection rate also improved from 59 to 125 (per 100,000 population). The treatment success rate improved from 31% to 67% for all tuberculosis, and 47% to 77% for sputum smear positive. Likewise, the treatment success rate among private facilities increased from 52% (2010) to 80% (2015). It was reported that contact screening had been expanded and the detection rate had increased, and in particular, that about 2,500 child contacts had been found and 70% of them had been given preventive medication.

(3) Tuberculosis control service, in accordance with the International Standards of Tuberculosis Control Service, set by WHO, will be available for all in any situation, including refugees and people living in the rural areas, in Afghanistan. (Source: *Phase 3 Completion Report* (September 2019) and interview with the NTP manager)

- The number of diagnostic centers for drug-resistant tuberculosis increased to 48 centers. The laboratory network system was established by the implementation of

¹²Source: G. Qader et al. (2017) Addressing tuberculosis control in fragile states: Urban DOTS experience in Kabul, Afghanistan, 2009-2015 <https://doi.org/10.1371/journal.pone.0178053>

slide transport systems in all provinces. Cross-checks per province are carried out, and the results are centralized.

- The decentralization of drug-resistant tuberculosis management has been strengthened. The Regional Reference Laboratories (Nangarhar, Balkh, Herat, and Kandahar) are diagnosing drug-resistant tuberculosis as the core of the surrounding provinces. The Regional Reference Laboratories will be expanded to Paktia and Kunduz.
- The excel-based electric filing system (ENRS), a monitoring system that emphasizes positive detection, started at the province level. The patient registration information recorded in the provinces is aggregated and operated by NTP.
- The treatment capacities of drug-resistant tuberculosis at NTP and the Afghan-Japan Communicable Diseases Hospital were improved.
- In Phase 3, following the survey in Phase 2, a pilot intervention to women was conducted in the four provinces of Herat, Parwan, Balkh, and Nangarhar. At the time of delivery, high-risk pregnant women were identified by interviews, and tuberculin tests were performed to identify positive cases (asymptomatic patients). The preventive therapy was given to those who were positive. As a result, the proportion of female tuberculosis patients decreased in the target area.
- The Phase 3 project conducted workplace examinations for women working in textiles and marble processing in the suburbs of Kabul, who were also considered to be a high-risk group. Based on the practice, a standard operating procedure was developed for workplace examinations.
- Screenings for refugees and prisoners are being conducted nationwide at the time of the ex-post evaluation.

3.2.2.1 Achievement of Overall Goal

At the time of planning of Phase 2, the overriding goal of Phase 1, “mortality and morbidity caused by tuberculosis are reduced nation-wide in Afghanistan,” was decided to be used continuously in Phase 2. At that time, however, the mortality rate or prevalence rate was not used as the overall goal of Phase 2 because the prevalence rate data had some problems with the accuracy, and the goal was described as “to reduce the burden of tuberculosis in Afghanistan in line with MDGs.” Therefore, in this evaluation, both goals were treated as the same, considering the accuracy of data, and the evaluation of the overall goal was unified to that of Phase 2. Table 3 shows the achievement of indicators of the overall goal.

Table 3. Achievement of Overall Goal

Overall Goal	Indicator	Actual																																																																				
To reduce the burden of tuberculosis in Afghanistan in line with MDGs.	Indicator of Phase 1: The prevalence and mortality of tuberculosis would be halved by 2015.	<p>The overall goal of Phase 1: Compared to achieving the prevalence rate of 330 and the mortality rate of 46 per 100,000 population by 2015, the NTP response showed the prevalence rate of 340 and the mortality rate of 39 as of 2015. Numerically, the prevalence rate was slightly below the target, but the mortality rate was achieved. However, at the time of planning, the prevalence rate was set at 661 and the mortality rate was set at 92 in 2006, and according to the data presented by NTP at the time of ex-post evaluation, the prevalence rate was 340 and the mortality rate was 43 in 2006. For reference, <i>WHO Global Tuberculosis Report 2008</i> showed that the prevalence rate was 231 and the mortality rate was 32 in 2006. As pointed out in the Terminal Evaluation report of Phase 1, the national prevalence survey has not been conducted even at the time of the ex-post evaluation, and it is difficult to make a numerical judgment from this information. Therefore, no judgment can be made regarding the overall goal.</p> <p>The overall goal of Phase 2: Compared to reducing the prevalence rate at 167 per 100,000 population by 2020, the NTP response showed the prevalence rate was 340 in 2015, the year closest among the responses from NTP. WHO has not reported prevalence rate figures after 2013. Since the national prevalence survey has not been conducted at the time of the ex-post evaluation, it is difficult to make a numerical judgment from this information, so no judgment can be made regarding this goal.</p> <p>Therefore, it is difficult to judge the degree of achievement of the overall goal numerically.</p> <p><Trend of prevalence and mortality of tuberculosis></p> <table border="1"> <thead> <tr> <th>Year</th> <th>Prevalence rate</th> <th>Mortality rate</th> <th>Remarks</th> </tr> </thead> <tbody> <tr><td>2004</td><td>340</td><td>51</td><td></td></tr> <tr><td>2005</td><td>340</td><td>47</td><td></td></tr> <tr><td>2006</td><td>340</td><td>43</td><td>Phase 1 Base year</td></tr> <tr><td>2007</td><td>340</td><td>39</td><td></td></tr> <tr><td>2008</td><td>340</td><td>40</td><td>Phase 2 planning</td></tr> <tr><td>2009</td><td>340</td><td>44</td><td></td></tr> <tr><td>2010</td><td>340</td><td>43</td><td></td></tr> <tr><td>2011</td><td>340</td><td>44</td><td></td></tr> <tr><td>2012</td><td>340</td><td>44</td><td></td></tr> <tr><td>2013</td><td>340</td><td>43</td><td></td></tr> <tr><td>2014</td><td>340</td><td>43</td><td></td></tr> <tr><td>2015</td><td>340</td><td>39</td><td>Phase 1 target year</td></tr> <tr><td>2016</td><td>NA</td><td>34</td><td></td></tr> <tr><td>2017</td><td>NA</td><td>30</td><td></td></tr> <tr><td>2018</td><td>NA</td><td>29</td><td></td></tr> <tr><td>2019</td><td>NA</td><td>29</td><td>Ex-post evaluation</td></tr> </tbody> </table>	Year	Prevalence rate	Mortality rate	Remarks	2004	340	51		2005	340	47		2006	340	43	Phase 1 Base year	2007	340	39		2008	340	40	Phase 2 planning	2009	340	44		2010	340	43		2011	340	44		2012	340	44		2013	340	43		2014	340	43		2015	340	39	Phase 1 target year	2016	NA	34		2017	NA	30		2018	NA	29		2019	NA	29	Ex-post evaluation
	Year		Prevalence rate	Mortality rate	Remarks																																																																	
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Indicator of Phase 2: the prevalence of TB will be reduced from 231 (2008) to 167 per 100,000 by 2020.																																																																						

		Unit: Person (per 100,000 population) Source: provided by implementing agency
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As mentioned above, it was difficult to numerically measure the overall goals in both Phases 1 and 2. From the data obtained, the prevalence rate of the whole country did not decrease, but the mortality rate decreased when compared before and after the project. The project purposes were likely to be achieved by the time of completion of Phases 1 and 2. The testing and treatment capacity for local residents and refugees who had difficulty in accessing testing and treatment was expanded. The medical staff's ability was also improved to test and treat drug-resistant tuberculosis. According to an interview with the NTP director at the time of the ex-post evaluation, with the introduction of 6-month therapy, the treatment period has been shortened from eight months. Additionally, improvement of testing equipment and testing capacity shortened the diagnosis from two days to about half a day. It can be said that the burden on the patient was reduced. Although it is difficult to show a numerical causal relationship, the project contributed to the achievement of the overall goal to some extent because the burden on the patient was reduced through the achievement of the project purposes. From the above, the project has mostly achieved the overall goal.

3.2.2.2 Other Positive and Negative Impacts

The following impacts were confirmed in the terminal and ex-post evaluations.

(1) Preventing the spread of infection by appropriate treatment

If tuberculosis patients do not receive appropriate treatment, it is said that they will newly infect 10 to 13 people in a year, which can lead to death. Proper treatment of tuberculosis will prevent the spread of infection, contribute to labor productivity (the economic effect will increase by enabling labor) and contribute to the development of the country. The project expected this as a positive impact. Furthermore, the global average of the male to female ratio of tuberculosis prevalence rate was 1.6 (male/female), which was higher in males, while Afghanistan was 0.7, which was higher in females, showing a different pattern from that of many countries.¹³ One of the activities of Phase 2 clarified the factor and planned the intervention.¹⁴ In Phase 3, the project performed interventions and observed that the target group had a low prevalence rate after the intervention, which suggested that the intervention was effective. The project has contributed to the early

¹³ Global Tuberculosis Report 2014

¹⁴ The project investigated the cause of the phenomenon that more females developed tuberculosis, which is peculiar to Afghanistan especially at reproductive age, in Phase 2. As a result, it was suggested that factors related to pregnancy and childbirth, such as early childbirth and prolific birth, might be risk factors for the onset of tuberculosis. In Phase 3, pregnant women at high risk of developing tuberculosis underwent pilot intervention to receive preventive treatment after childbirth. Source: The Double-Barred Cross No.367 p12 (2016)

detection and treatment of pediatric tuberculosis patients through patient tracking and activities at pediatric hospitals. Similarly, the project has also contributed to the early detection and treatment of refugees and prisoners suffering from tuberculosis. Therefore, its contribution to the health promotion among the high-risk group of tuberculosis as well as the socially vulnerable was highly significant.

(2) Positive impact on other sectors

As an unexpected positive impact of the project on other sectors, through educational activities and workshops for school teachers and local religious leaders in the project, the Ministry of Education and other ministries came to recognize the importance of health education. They also became more active in collaborative activities among sectors according to the Completion Report of Phase 1.

(3) Cooperation with other countries

According to the Terminal Evaluation report of Phase 2, through the activities of tuberculosis control for returning refugees in Nangarhar and Herat provinces, cooperation has been promoted with Pakistan and Iran, which share the borders with one of these provinces. In addition to the establishment of a referral system¹⁵ with Pakistan, Aga Khan University became a supranational reference laboratory to ensure quality control of tuberculosis testing by NTP. Regarding Iran, NTP staff have been trained on X-ray diagnosis of multidrug-resistant tuberculosis and lung diseases since 2012.

In addition, at the forum on the agenda of tuberculosis control in Afghanistan in the 41st Union World Conference on Lung Health (sponsored by the International Union Against Tuberculosis and Lung Disease) held in 2009, international aid agencies and NTP discussed and agreed on “factor analysis of women's tuberculosis and strengthening of measures,” which was adopted as the Berlin Declaration.

(4) Cooperation with Grant Aid “Project for Construction of Hospital for Communicable Disease”

According to the Chief Advisor of the project, the proposal related to the activities in Phases 1 and 2 led to the Grant Aid Project for Construction of Hospital for Communicable Disease (concluded its grant agreement in February 2011). The target of technical cooperation was shifted from common tuberculosis in Phase 1 to drug-resistant tuberculosis in Phase 2. Although a long-term and reliable medication was required for the treatment of drug-resistant tuberculosis, there were no facilities to isolate and

¹⁵ Diagnosis of drug-resistant tuberculosis requires culture test and drug susceptibility test. As of March 2013, drug susceptibility test was commissioned to the Aga Khan University, Pakistan. Source: Phase 2 Project Progress Report (March 2013)

hospitalize tuberculosis patients in Afghanistan. Therefore, the project proposed to JICA that an inpatient facility for tuberculosis patients be necessary, which led to the construction. Medical staff trained in the project continue to work at the hospital. Since the project conducted training for laboratory technicians and doctors, it can be said that the project has contributed to the improvement of examination, diagnosis and treatment skills of medical professionals involved in tuberculosis control working in the hospital. In addition, during this ex-post evaluation, the director of the NTP department said that it was highly significant that the hospital could provide inpatient treatment for multidrug-resistant tuberculosis.

The capacity of NTP was strengthened, the examination system was established nationwide, and the treatment system based on DOTS was established in Phase 1. Based on the achievement of Phase 1, the program management capacity of NTP was strengthened, the multidrug-resistant tuberculosis testing system was established, and services were strengthened to local residents, refugees and prisoners in Phase 2. The project purposes of both projects have been mostly achieved. Although it is difficult to show a numerical causal relationship regarding the achievement status of the overall goal, the projects have contributed to the achievement of the overall goal to some extent as the burden on patients has been reduced by the achievement of the project purposes. Therefore, since the projects have to some extent achieved the project purposes and overall goal, effectiveness and impact of the project are fair.

3.3 Efficiency (Rating: ②)

3.3.1 Inputs

The main planned and actual inputs of the project are shown in Table 4 and Table 5.

Table 4. Plan and actual inputs of Phase 1

Inputs	Plan	Actual
(1) Experts	MM* not stated - Long term: 3 persons (Chief adviser, Coordinator, Tuberculosis laboratory management) - Short term: 2-3 persons/year (Tuberculosis administration, Sputum smear test, etc.) - Third-country expert (Tuberculosis control)	MM* not stated - Long term: total 8 persons (Chief adviser (1), Tuberculosis laboratory management (2), Tuberculosis control (2), Coordinator (4)) - Short term: total 16 persons (Shuttle-dispatched chief advisors: 13 persons)
(2) Trainees received	Number of persons not stated - National tuberculosis program management - Bacterial test of tuberculosis	- Training in Japan: 9 persons - Third-country training in Egypt: 1 person

	control management - Middle-level tuberculosis management	
(3) Equipment	Items not stated	72 million yen
(4) Local cost	Amount not stated	1,460,000 yen
(5) Follow-up budget	-	4 million yen NTI renovation budget
Japanese Side Total Project Cost	581 million yen	715 million yen
Afghanistan Side Total Project Cost	Amount not stated - Counterpart placement: NTP: Director, Sub-director, Staff NTI: Director, Sub-director, Staff - Land/facility supply: Office for experts, facility, land for activities - Local cost responsibility: Salary for counterparts	- Counterpart placement: NTP Director, NTP central unit staff (33), Provincial tuberculosis control officers and Regional tuberculosis control officers (44), Regional and provincial laboratory supervisors (47) - Land/facility supply: Project office in NTI compound - Project running cost: Amount unknown

* MM stands for man month.

Source: documents provided by JICA

Table 5. Plan and actual inputs of Phase 2

Inputs	Plan	Actual (project completion)
(1) Experts	Number of persons and MM* not stated Chief adviser, Tuberculosis laboratory management, Health promotion/Coordinator, dispatch of other experts as needed	- Long term: 3 persons (97.29 MM) Tuberculosis laboratory management (42.43 MM), Health promotion (30.5 MM), Program management/financial management (24.36 MM) - Short term: 1 person (30.06 MM) Chief adviser
(2) Trainees received	Group training, third-country training in Egypt	Training in Japan (18), third-country training in Egypt (20), Technical exchange training in Iran (61)
(3) Equipment	Items not stated	140 million yen (Electronic balance, tuberculosis inspection equipment such as refrigerated centrifuges, mobile digital roentgen devices, anti-tuberculosis drugs as an emergency measure to reduce external budget)
(4) Local cost	Burden of other expenses required for project implementation: training, research, enlightenment activities, etc.**	Amount not stated

(5) Overseas project strengthening expenses	Amount not stated	243 million yen
Japanese Side Total Project Cost	374 million yen	635 million yen
Afghanistan Side Total Project Cost	<ul style="list-style-type: none"> - Counterpart placement: Project Director (Deputy Minister, Ministry of Public Health), Project Manager (NTP Director) - Salary for counterparts - Land/facility supply: Securing the facilities (expert office) required for the project - Local cost responsibility: Details to be discussed 	<ul style="list-style-type: none"> - Counterpart placement: NTP central level (28), Provincial level (68) - Land/facility supply: Facilities and maintenance required for the project, Project office and facilities in NTP - Project running cost: salary of NTP staff, utility costs, office consumables, maintenance costs for facilities and equipment

* MM stands for man month.

** These activity costs were basically planned to be covered by the GFATM 8th program as an NTP project activity for 5 years from FY2009, but it was planned to support them as needed. (The GFATM budget is about 3.2 billion yen over five years, and about 80% of this project activity was planned to be covered by this fund. Mainly, almost all inspection-related matters are training, patrol guidance, quarterly meetings, etc. Community DOTS, IEC/advocacy, communication, social mobilization, etc. On the other hand, activities related to tuberculosis control for refugees and women, especially a part of monitoring such as public-private partnership, were not covered by this fund.) Although the actual amount is not stated, as activities in Phase 2, investigations for measures against tuberculosis for refugees and measures for women's tuberculosis were carried out.

Source: documents provided by JICA

3.3.1.1 Elements of Inputs

According to the Terminal Evaluation of Phase 1, the input was generally appropriate in terms of quality, quantity and timing, and it was judged that the efficiency was generally high by the degree of achievement of the outputs. Regarding the input from the Afghanistan side, it was not always provided in a timely manner, so it was confirmed that the Afghanistan side would make efforts to secure further input in the future at the Terminal Evaluation of Phase 1.

In the Terminal Evaluation of Phase 2, it was confirmed that the input of human resources from the Afghanistan side was appropriate in terms of both quality and quantity, although there was a problem of frequent changes of NTP management personnel. Regarding the budget, there was a delay in the contribution of external funds, which

hindered the implementation of the project. The input from the Japanese side was evaluated as moderate in both quality and quantity. There were some periods when Japanese experts could not be dispatched as planned due to security issues, but there were no serious problems in progress due to changes in the activity plan and technical advice through the project staff. Due to the delay in the start of the GFATM 8th program and budget cuts, the project procured essential therapeutic medicines for tuberculosis treatment as an emergency measure. Although such a measure was commendable as a flexible response, the input financially exceeded the original plan.

3.3.1.2 Project Cost

The actual project cost of Phase 1 was 715 million yen against 581 million yen in planning, which exceeded the plan (123% of the planned amount). The actual project cost of Phase 2 was 635 million yen against 374 million yen in planning, which exceeded the plan (170% of the planned amount). According to the documents provided by JICA, the reason was that, in 2011, the purchase of anti-tuberculosis drugs (about 25 million yen) was unavoidable to avoid stock-outs against the global shortage due to the discontinuation of the production of one of the commonly used anti-tuberculosis drugs and to avoid stock-outs of anti-tuberculosis drugs due to the delay in the procedures of the 6-month therapy at the WHO Mediterranean Office (progress report in March 2011). The Communicable Disease Hospital constructed by grant aid was opened in January 2014, but the hospital rooms were cold and there were complaints from patients because the heating equipment installed was insufficient, and the project purchased oil stoves. In addition, because the budget was not available at the hospital for a while, the project purchased fresh food for two months from the overseas business strengthening expenses (March 2014 progress report). These additional project costs were unavoidable expenditures after consultation with the local office and headquarters of JICA. These expenses have enabled the project to prevent interruptions and delays of patient treatment and to keep a minimum hospitalization environment for drug-resistant patients in a timely manner.

From the above, the project cost exceeded the plan in both Phase 1 and Phase 2.

3.3.1.3 Project Period

The project period of Phase 1 was from September 2004 to September 2009 as planned. That of Phase 2 was from October 2009 to September 2015, exceeding one year (120% of the plan). It was extended by responding to the recommendation of Terminal Evaluation. During the one-year extension period (October 2014–September 2015), the project focused on following activities while restricting travel and encouraging remote

management for security reasons.

- Work on the closing of fund consignment management of the 10th GFATM Program (The work of the agency responsible for receiving funds was completed on September 30, 2014, and the completion reporting period was until February 2015.¹⁶)
 - Preparation of the NTP system, which would be the joint fund receiving agency in the next GFATM financial support program (scheduled to start in April 2015), technical support for strengthening the program implementation capacity, and support for building a collaborative system with the United Nations Development Program (UNDP), which was the main fund receiving agency.
 - Technical support and survey to reduce the burden of tuberculosis among women
 - Technical support for the management of the Communicable Disease Hospital
 - Preparation of the Northern Regional Reference Laboratory of Tuberculosis Inspection (repair work and human resource development for conducting culture test)
 - Support for implementation of preparatory work (training, etc.) for the modification of the external quality control system
 - Support for drug susceptibility testing in the National Reference Laboratories
 - Conduct of the third-country training in Iran (strengthening X-ray diagnostic ability)
- (Source: Progress Report from September 2014 to September 2015)

The extension of the project period was adequate because the above items were implemented to respond to the matters pointed out in the Terminal Evaluation by the combination of dispatch of short-term experts and remote management.

From the above, the project period of Phase 1 was as planned, but that of Phase 2 exceeded the plan. However, under the extremely unstable external conditions during Phase 2 such as the evacuation of experts due to worsening of security conditions, the project supported tuberculosis control in Afghanistan. The capacity of NTP has been strengthened, and effect of contributing to the reduction of the burden on tuberculosis patients was observed. These were the result of patient and flexible responses of the parties concerned.

Based on the above, both the project cost and the project period exceeded the plan. Therefore, the efficiency of the project is fair.

3.4 Sustainability (Rating: ③)

¹⁶ To report on the balance of funds and the allocation of funds to activities in accordance with the guidelines of GFATM.

3.4.1 Policy and Political Commitment for the Sustainability of Project Effects

Since the Afghanistan MDGs is in effect up to 2020, the project period even at the time of ex-post evaluation was included, which ensured policy sustainability. The *Afghanistan National Health Policy 2015–2020* at the time of the ex-post evaluation also cited the importance of public health interventions in the prevention and control of infectious diseases, including tuberculosis and malaria. In addition, sustainability in policy is maintained by the *National Tuberculosis Strategic Plan 2017–2021, 2021–2025, Guidelines and SOPs for Tuberculosis Control (2014)* issued by NTP.

3.4.2 Institutional/Organizational Aspect for the Sustainability of Project Effects

According to the NTP Director, NTP had a total of 83 staff, 15 in the central and 68 in the regions, as of February 2021. The actual staff allocation is sufficient compared to the allocation plan. He said that there was no problem with NTP as an organization because the team members were involved in the decision-making process at NTP and the division of roles was clear. The *Expert Work Completion Report of Phase 3 (July 2019)* stated that the support provided had reasonably strengthened NTP's capacity in preparing various guidelines and proposals for application for funding properly. In the report, although it was guaranteed that NTP could extract issues on their own based on the analysis of the current situation to some extent, their ability to logically summarize them in a high-quality document was not sufficient, so further support in this regard was necessary. In fact, the Afghan government requested technical support to Japan for compiling concept notes for the GFATM Program from 2021, formulation of the *National Tuberculosis Strategic Plan 2020–2025* necessary for the concept notes, and formulation of guidelines of measures against asymptomatic infections. Based on the above, NTP itself is aware of the insufficient capabilities and the matters that require support, and is approaching development partners, etc. to fill the gap. The institutional and organizational aspect for the sustainability of project effects is maintained because NTP is capable to implement and respond to what should be done as a result while receiving supports at the same time.

3.4.3 Technical Aspect for the Sustainability of Project Effects

The technical capabilities of NTP have improved to some extent in terms of the expansion of high-quality DOTS, contributing to the continuation and expansion of tuberculosis control based on the Stop Tuberculosis Strategy and the development of human resources in laboratories. However, the Terminal Evaluation of Phase 2 noted delays in the diagnostic ability by digital X-rays to diagnose tuberculosis, the appropriate introduction of new diagnostic methods, and large-scale tuberculosis screening in prisons

and refugee camps. The diagnostic ability by digital X-rays was strengthened in the third-country training in Iran for doctors in local hospitals during the extension period of Phase 2. However, the number of staff with excellent interpretation ability is scarce, and further improvement of diagnostic imaging technic is required (Expert Work Completion Report May 17, 2017 and July 1, 2019). Screening for prisoners and refugees is carried out nationwide. The Stop Tuberculosis Strategy requires the detection of asymptomatic infections, but the system has not been established yet. However, NTP requested Phase 3 experts to provide technical support for formulating guidelines for asymptomatic infections. As described in the above Institutional/Organizational Aspect, NTP make efforts to establish measures for asymptomatic infections while compensating for the lack of technical skills. At the time of the ex-post evaluation, according to the NTP director, most of the equipment provided in the project is in operation, but the drug susceptibility test equipment (GeneXpert) of the National Reference Laboratory is not working and requires maintenance. The drug susceptibility test equipment of the LPA method provided by the JICA Grant Aid “Anti-tuberculosis Drugs and Diagnostic Supplies Development Plan” (Phase 3, 2020–2023)¹⁷ via WHO is in operation with reagents. Also in the regional laboratories, some equipment does not work and requires maintenance. These will be maintained during FY2021. In addition, spare parts for HEPA filters will be available in FY2021. The newly assigned staff are properly trained.

From the above, while compensating for the lack of technicians, maintenance of necessary equipment and consumables are accessible. The technical aspect for the sustainability of project effects is generally maintained.

3.4.4 Financial Aspect for the Sustainability of Project Effects

At the time of the Terminal Evaluation, the budgets of the Ministry of Public Health and NTP were limited, and the costs for implementing the tuberculosis control program could not be covered by own funds. The need of raising funds from external institutions such as GFATM would continue. Since tuberculosis control was an internationally high priority issue, if NTP properly raised funds and managed its activities, continuous financial support from development partners would be expected.

Table 6 shows the financial status of NTP after the completion of the project. Although no figures were provided for expenditure, there was no negative balance and no financial problem.

¹⁷ https://www.mofa.go.jp/mofaj/press/release/press4_008384.html

Table 6. Financial status of NTP (Unit: AFN)

Year	2015	2016	2017	2018	2019
Income: Ministry of Public Health	870,319	966,054	1,072,320	1,190,275	1,321,205
Donors	6,269,625	10,796,392	12,406,058	10,726,167	11,653,224
Income Total	7,139,944	11,762,446	13,478,378	11,916,442	12,974,429
Expenditure:	No answer				

Source: provided by the implementing agency

According to the *Expert Work Completion Report of Phase 3*, GFATM also emphasized self-sustainability and demanded an increase in the own contribution of the Afghan government. If the planned increase could not be achieved, GFATM would cut 15% of the support budget. In response, the Ministry of Public Health increased the budget by \$3.6 million over the three years of 2018-2020 for the three programs on tuberculosis, AIDS and malaria. NTP allocated this increased budget for labor costs in the new drug-resistant tuberculosis wards, 18 units of GeneXperts, the reagent, food supply in drug-resistant tuberculosis wards (meat and other nutritious food), side effect treatment during drug-resistant tuberculosis treatment, and maintenance of small equipment, etc. It is unclear whether this budget will be increased after 2021. However, Table 6 shows that the burden on the Ministry of Public Health is steadily increasing year by year. Major projects supported by external development partners at the time of the ex-post evaluation were the STAR Project¹⁸ (2020–2023) by USAID, two projects called NHTAPS¹⁹ and UHI²⁰ (2021–2025), financial support by GFATM (2021–2023), and grant aid “The Project for Supply of Anti-Tuberculosis Medicines and New Diagnostics Kits and for Monitoring the Implementation of Shorter Multi Drug Resistant Tuberculosis Regimen” (Phase 3, 2020–2023) by JICA via WHO.

Based on the above, the budget for the health sector has to rely on an external budget because it is a conflict-affected country. Development partners provide financial support while promoting self-sustainability. At the time of the ex-post evaluation, the immediate external funds required for the Stop Tuberculosis Strategy by 2023 are secured. The Afghan government's self-help efforts have continued, and its own contributions have increased. Although external funding is a prerequisite, financial sustainability is being maintained.

As stated above, no major problems have been observed in the policy background and the institutional/organizational, technical, financial aspects. Therefore, sustainability

¹⁸ Sustaining Technical and Analytic Resources: Support for NTP personnel or challenges to improve tuberculosis control.

¹⁹ The support aims at improving health care services to reduce tuberculosis for five years.

²⁰ Urban Health Initiative: Technical Support to improve public-private partnership of tuberculosis control targeting in five cities.

of the project effects is high.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

The projects were implemented aiming at reducing the prevalence rate and mortality from tuberculosis, that is to achieve the Afghanistan MDGs and reduce the burden from tuberculosis, by conducting tuberculosis tests including multidrug-resistant tuberculosis and performing high-quality DOTS nationwide in Afghanistan through strengthening the program management capacity of NTP.

The objective of the project is consistent with development policy and the development needs of the country and Japan's assistance policy for Afghanistan. Therefore, the relevance is high. In the Phase 1, the capacity of NTP was strengthened, the inspection system was established nationwide, and the treatment system based on DOTS was established. In the Phase 2, NTP's program management capacity was strengthened, a multidrug-resistant tuberculosis testing system was established, and services for local residents, refugees and prisoners suffering from tuberculosis were strengthened. Therefore, the project purpose was mostly achieved. Although it is difficult to show the causal relationship numerically between the achievement status of the overall goal indicators, "to reduce prevalence rate and mortality from tuberculosis," and the project, the achievement of the project purpose has contributed to the reduction of the burden on patients and to the achievement of the overall goal to some extent. Therefore, the effectiveness and impact of the project are fair. Both the project cost and the project period exceeded the plan. Therefore, efficiency of the project is fair. No major problems have been observed in the policy background and the institutional/organizational, technical, financial aspects. Sustainability of the project effects is high.

In light of the above, this project is evaluated to be satisfactory.

4.2 Recommendations

4.2.1 Recommendations to the Implementing Agency

- Strengthening technics and finances of NTP to sustain the effects of the project

Since multiple external funds for NTP will end in 2023, Ministry of Public Health should secure its own budget for tuberculosis control after 2023 of NTP. At the same time, NTP should arrange for technical personnel or ways to obtain technical assistance to prepare budget applications for obtaining external funds. In addition, it is necessary for NTP to establish a system to expand the early detection of asymptomatic infections by developing or securing human resources with the ability to interpret X-rays.

4.2.2 Recommendations to JICA

None.

4.3 Lessons Learned

Use of alternative data to measure achievements

Data for indicators at the time of completion evaluation should be collected as much as possible, and possible alternative data should be used for measurement to avoid the situation where no evaluation is possible. Even if it is necessary to make a desk-based evaluation utilizing local consultants due to the security situation or the spread of infectious diseases worldwide, data should be obtained from the site as much as possible. If it is difficult, efforts should be made to avoid situations where evaluation is impossible or difficult by using alternative indicators from peer-reviewed articles or Demographic Health Surveys to measure and judge whether or not goals have been achieved. By doing so, the corresponding indicators can be collected for comparison in the ex-post evaluation, which can serve as a pathway for judgment. In addition, when setting indicators at the time of planning, it is advisable to consider alternative data, in case the planned national survey is not conducted in the future.

END