

Infectious Diseases Control Project



Project Site Lusaka

1. Background of Project

In Zambia, infectious diseases are the principal cause of ill health. Specifically, 20 percent of the adult population is infected with the AIDS virus, and the incidence of tuberculosis has increased rapidly since the mid-1980s. Against this background, Japan implemented Project-type Technical Cooperation titled "University of Zambia, School of Medicine Project" from February 1980 to February 1989. This project provided technical cooperation to the University Teaching Hospital in Zambia (UTH) mainly in the fields of neonatal care and pediatric surgery. Following this project, another Project-type Technical Cooperation, "Infectious Diseases Project" was implemented in the field of medical technology for viral diseases from April 1989 to March 1994.

Based on the outcome of these previous cooperation activities, the Government of Zambia requested Japan to provide technical cooperation with the aim of strengthening the functions of the UTH Virology Laboratory, which had been set up through the Infectious Diseases Project, so that the Laboratory would be capable of laboratory diagnosis not only on viral diseases but also bacterial infections.

2. Project Overview

(1) Period of Cooperation

1 April 1995-31 March 2000

(2) Type of Cooperation

Project-type Technical Cooperation

(3) Partner Country's Implementing Organization

University Teaching Hospital in Zambia (UTH)

(4) Narrative Summary

- 1) Overall Goal
To control infectious diseases in Zambia through development of human resources.
- 2) Project Purpose
To strengthen the functions of the Virology Laboratory at UTH as a public health laboratory

for improved diagnosis of infectious diseases.

3) Outputs

- a) The quality of laboratory diagnosis on infectious diseases at UTH is improved.
- b) Etiological and epidemiological studies on infectious diseases are conducted at the hospital and in communities.
- c) The surveillance system for infectious diseases is strengthened.
- d) Essential laboratory techniques for infectious diseases are improved at the district level.
- e) Data obtained from the project are effectively utilized.

4) Inputs

Japanese Side

| | |
|--------------------|-------------------------|
| Long-term experts | 8 |
| Short-term experts | 14 |
| Trainees received | 10 |
| Equipment | approx. 212 million yen |
| Local cost | approx. 118 million yen |

Zambian Side

| | |
|-----------------------------|-----------------------|
| Counterparts | 17 |
| Land, facilities, equipment | |
| Local cost | approx. 1 million yen |

3. Members of Evaluation Team

Team Leader:

Youichi MINAMISHIMA, Vice President, Miyazaki Medical University

Epidemiology and Human Resource Development:

Hiroshi SUZUKI, School of Medicine, Niigata University

Bacteriology and Immunology:

Kazuo SUGAMURA, School of Medicine, Tohoku University

Virology:

Kiyoto NAKAMURA, School of Medicine, Yamagata University

Project Management:

Ikuo TAKIZAWA, Second Medical Cooperation

Division, Medical Cooperation Department, JICA

4. Period of Evaluation

20 July 1999-5 August 1999

5. Results of Evaluation

(1) Efficiency

Since most of the inputs including major equipment were implemented effectively and produced a number of outputs, they were judged to be mostly efficient. However, due to the characteristic of research-oriented projects where core activities bring about a number of smaller research themes, project activities tended to diffuse over time as the project progressed, which made the implementation of specific research programs and output-oriented project management difficult. Also, the considerable delay in the dispatch of one long-term expert and the consequent delay in activities of the tuberculosis division might have restricted achievement of the anticipated outputs.

(2) Effectiveness

Most of the planned transfer of microbiological techniques (viruses and acid-fast bacteria) were completed. Also, through five technical workshops for district hospital staff, the project trained a total of 226 doctors and technologists on surveillance and laboratory diagnosis of HIV and polio. From these achievements, it was considered that UTH established its technical and organizational base for carrying out surveillance of infectious diseases as well as providing technical support for other laboratories in the country; thus, the purpose of the project was mostly achieved.

(3) Impact

The UTH Virology Laboratory gained increasing international reputation because of its improved laboratory techniques and research capacity. The Laboratory was designated as a national reference laboratory for the polio eradication program under the Africa Regional Polio Laboratory Network, and was also recognized as a national institute for influenza by WHO in 1997. As a result, researchers in Zambia were highly motivated to work in the Laboratory, which may have a long-term impact on retaining highly skilled human resources within the country. Moreover, data collected by the etiological and epidemiological studies supported by the project provided valuable base-line information for the health reform proceeding in Zambia. In this way, the project also contributed to the better control of infectious diseases.

(4) Relevance

Control of infectious diseases has continued to be an urgent and important public health issue in Zambia. The recently defined essential package of health-care services also included control of infectious diseases as one of its

major targets. Also, it was significant to develop virological laboratories in Africa, where the basis for virus control is still fragile, and therefore relevance of the project was considered to be high.

(5) Sustainability

The retention rate of trained counterparts in the UTH Virology Laboratory was high. It was thus considered possible that they would continue to supervise and guide the younger members of the laboratory staff. Regarding financial aspects, the activities of UTH related to polio, HIV and influenza were receiving financial support from donors including NORAD, WHO and UNICEF. Other activities that were currently funded from the project would likely be sustainable to some extent considering the efforts of the Laboratory to introduce cost-sharing mechanisms through charging for some of the services it provides. However, there were some concerns over the availability of funds for operation and maintenance of equipment provided, especially for the supply of high-cost consumables necessary for some equipment.

6. Lessons Learned and Recommendations

(1) Lessons Learned

When planning a project that includes components of research and development, the planners should prepare, in addition to PDM and other standard project documents, a detailed implementation plan of individual research programs. Once such a project starts, the implementers should always make sure that the activities are carried out in accordance with the implementation plan.

(2) Recommendations

Since the tuberculosis section had not fully achieved the intended output due to the delay in the dispatch of one long-term expert, it was recommended to extend the term of the expert for one year and to provide additional technical cooperation after the termination of the project. Also, in the event Zambia requests another technical cooperation project to utilize the UTH Virology Laboratory, it was considered desirable that the Japanese side respond to the request positively after confirming the possibility of securing the necessary support mechanism (i.e., human resources to be dispatched as experts and host organizations to accept Zambian trainees).

7. Follow-up Situation

Based on the above recommendation, the term of the expert in the field of tuberculosis was extended one year and two months.

In addition, with the aim of strengthening the system of testing for AIDS and tuberculosis (as an AIDS-related complication) infection, Project-type Technical Cooperation, "The HIV/AIDS and Tuberculosis Control Project" is being implemented for a five year duration from 30 March 2001.

Southern Province Water Supply Project

Project Sites

Monze, Sinazongwe, and Namwala Districts in the Southern Province



1. Background of Project

Despite the Zambian Government's efforts to promote the construction of wells in villages in the Southern Province, many facilities were not in use due to the lowering of the water level of shallow wells and breakdown of pumping facilities. As a consequence, the water supply coverage rate was estimated to be as low as 18 percent. Community people resorted to using hand-made shallow wells, distant surface water and stagnant water for their water supply, and drank this water without filtration or boiling. The situation was further aggravated by low rainfall in 1992, and the shortage of domestic water and incidence of diseases associated with water became serious.

Under these circumstances, the Government of Zambia formulated a plan for the construction of borehole water supply facilities and the improvement of water conditions in the villages in southern provinces, and requested Grant Aid from Japan. In this project, DfID oversaw the maintenance activities of wells carried out by community members under the WASHE program¹⁾.

burden of water collection on community people are reduced.

2) Project Purpose

Community people in the project sites have access to safe water for domestic use.

3) Outputs

- a) 60 borehole facilities with hand pumps are constructed.
- b) Resources and equipment necessary for the maintenance of borehole facilities are provided.
- c) The organizational capability and activities of WASHE committees are enhanced in order to strengthen the maintenance activities of borehole facilities. (DfID)

4) Inputs

Japanese Side

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|-------|---------------------------------------|
| Grant | Total 702 million yen (E/N amount) |
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Zambian Side

Land

2. Project Overview

(1) Period of Cooperation

FY1996

(2) Type of Cooperation

Grant Aid

(3) Partner Country's Implementing Organizations

Ministry of Energy and Water Development (MEWD)
Department of Water Affairs (DWA)

(4) Narrative Summary

1) Overall Goal

The incidence of disease associated with inadequate water and poor hygiene practices and

3. Members of Evaluation Team

JICA Zambia Office
(Commissioned to ASCO, accompanied by Harumi IDA, Project Formulation Adviser, JICA)

4. Period of Evaluation

7 November 1999-20 November 1999

5. Results of Evaluation

(1) Efficiency

The construction of boreholes and the provision of resources and materials were implemented as scheduled.

(2) Effectiveness

A total of 220 borehole facilities were installed in the villages and the schools in the city and nine districts through Phase I and II of this project.

Most of the sixty boreholes constructed in phase I and then studied by the evaluation team were still being used at the time of evaluation, two years after the delivery to the Zambian side. However, the establishment of drainage facilities on the side of community people was behind schedule in some areas.

At the same time, the organization of WASHE committees was promoted at the village level (V-WASHE) as reflected by the enhancement of organizational capability and activities of district-level WASHE committees (D-WASHE) which DfID took charge of. As a result, a V-WASHE committee consisting of community representatives was established in every village where a borehole was installed, and a certain level of maintenance activities were carried out by community people. Also, sanitary education was implemented in most villages. However, measures to protect water supply facilities, such as putting a fence around wells, and maintenance activities were not adequate in those villages which were inaccessible by road and difficult to receive the support of WASHE committees.

(3) Impact

With the exception of a few areas, clean water became available for community people year-round in the areas where boreholes were installed. Also, time spent for collection of water was reduced; therefore, this project contributed to the improvement of the quality of life of villagers.

(4) Relevance

The target villages were those areas where the provision of infrastructure was delayed and public services were not accessible. Thus, the villagers in these areas urgently required water-supply facilities. In addition, this project was based on the national water policy of the government of Zambia; therefore, the relevance of this project was considered high.

(5) Sustainability

The borehole maintenance system had some weaknesses particularly in communities that lacked harmony and support from NGOs. Also, small technical problems frequently occurred as no regular maintenance of boreholes was carried out. Although, in principle, water fees were collected regularly from community people, there was concern that the funds would not be sufficient for large-scale renovation work. Furthermore, it was



Deep well for manual fire engine (Monze District)

difficult to charge such fees in the areas where many users were poor.

6. Lessons Learned and Recommendations

(1) Lessons Learned

In projects where water supply facilities, such as boreholes, are installed, drainage facilities should be provided at the same time. In order to keep the water safe for drinking, there should be measures to protect wells and drainage ditches, such as planting a hedge or building a log fence to deny access to animals.

(2) Recommendations

Support to V-WASHE committees should be continued in order to enable sustainable maintenance activities by communities. In particular, a training program on the methods of maintenance and renovation of wells and the issues of health and hygiene should be provided to borehole managers, WASHE members and borehole users. In addition, community fund raising for maintenance is necessary, and further support on the software side should also be considered in order to make the project more sustainable at the community level.

¹⁾ The WASHE (Water, Sanitation, Health and Education) program outlines the basic concepts and framework for the system of water supply and sanitation activities in local villages. WASHE aims to promote concrete measures and resolve the salient issues laid out in the National Water Policy in a comprehensive manner. The activities are promoted through the WASHE committees established at every administrative and regional level.