

The Kenya Institute of Surveying and Mapping Project



Project Site Nairobi

1. Background of Project

In Kenya, geographical information, such as maps and aerial photographs, which are essential for the development of agriculture, socio-economic infrastructure, and energy and water resources, were insufficient. In addition, the number of skilled and qualified personnel in the field of surveying and mapping was inadequate. Recognizing that the development of human resources in these areas was necessary, the Government of Kenya requested the construction of the Kenya Institute of Surveying and Mapping (KISM) under the Japanese Grant Aid program (1995-1997). They also requested assistance from Japan in the establishment of an organizational structure, training system and facilities, and capacity building of the lecturers under the Project-type Technical Cooperation scheme.

This study focuses only on the evaluation of the Project-type Technical Cooperation.

2. Project Overview

(1) Period of Cooperation

1 October 1994-30 September 1999

(2) Type of Cooperation

Project-type Technical Cooperation

(3) Partner Country's Implementing Organizations

Survey Department, Ministry of Lands and Settlement
Kenya Institute of Surveying and Mapping (KISM)

(4) Narrative Summary

- 1) Overall Goal
The supply of qualified officers in the fields of surveying and mapping meets demand.
- 2) Project Purpose
The Kenya Institute of Surveying and Mapping (KISM) is established as the national training organization for fostering qualified officers in the fields of surveying and mapping.
- 3) Outputs
 - a) Organization of KISM is established.

- b) Appropriate training facilities and equipment are installed.
- c) Qualifications of a sufficient number of Kenyan lecturers are upgraded.
- d) Guidelines, syllabi and curricula for the training courses are developed.
- e) Textbooks and teaching materials for the training courses are developed.
- f) In-depth training in the fields of surveying and mapping are conducted in diploma, higher diploma and short-term courses.

4) Inputs

Japanese Side

Long-term experts	18
Short-term experts	29
Trainees received	25
Equipment	approx. 216 million yen
Local cost	approx. 56 million yen

Kenyan Side

Counterparts	55
Land and facilities	
Local cost	19.1 million pounds (approx. 764 million yen)

3. Members of Evaluation Team

Team Leader:

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Geodesy/Cartography:

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4. Period of Evaluation

27 June 1999-8 July 1999

5. Results of Evaluation

(1) Efficiency

Inputs on the Japanese side were carried out on schedule overall. Inputs on the Kenyan side were also completed as planned although there was a shortage of the budget allocation for the purchase of training facilities. Therefore, the delay in the construction of the Institute, which was completed in December 1998 under the Grant Aid program requested along with this technical cooperation, delayed the start of the training courses.

(2) Effectiveness

The three-year diploma course for high school graduates started in June 1996 as planned. Some 265 students were taking the course in June 1999. Counterparts had acquired sufficient skills and knowledge through technology transfer to be able to formulate curriculum and textbooks. As a result, the pass rate for the national examination of the first sixty-seven graduates reached 96 percent. This success rate is extremely high compared with the average success rate of the graduates of the Kenya Polytechnic who achieved 60 percent from 1987 to 1990 and 78 percent in 1998. In this regard, the diploma course of KISM came to play a key role in training qualified professionals in the field of land surveying and mapping.

However, the two-year higher diploma course for officials of the Land Survey Division started two years behind schedule from the initial plan in January 1998 due to the delay in the construction of the Institute. Fifty-nine students were attending the course in June 1999. The completion of the technology transfer was hindered by the delay in the launch of the higher diploma course.

(3) Impact

The high success rate for the national examination of graduates of the diploma course contributed to satisfying the personnel requirements in the fields of land surveying and mapping in Kenya. Although the recruitment of the newly qualified national civil servants was on temporary hold at the time of evaluation due to the economic crisis in Kenya, it was expected that skilled workers for land surveying and mapping would be satisfied by the year 2002, if recruitment resumed and the high success rate for the national examination of KISM graduates was maintained. Furthermore, KISM came to receive requests for mapping and similar work from other government agencies and international organizations as a result of becoming an established training institution.

(4) Relevance

The Government of Kenya promoted industrial land use in the National Economic Development Plan. Land surveying and mapping would provide important land



A lecturer explains their activities to evaluation team.

information and play a significant role for the implementation of the plan. This project closely matched the national plan in terms of the training of land survey engineers; therefore, the overall goal and project purpose were deemed to be relevant.

(5) Sustainability

KISM covered a portion of management costs through course fees and the formulation and sale of maps. However, it was considered necessary for the institute to establish new sources of revenue, for example, by undertaking consulting work for private enterprises, in order to protect itself against the unstable financial situation of the government as well as to prepare for its future status as a parastatal organization which independently generates its own resources. In terms of technical aspects, mechanical skills (for operation of the equipment) were generally satisfactory, but further improvement in the area of management was required.

6. Lessons Learned and Recommendations

(1) Lessons Learned

It is often difficult for training institutions to generate sufficient revenue through course fees only. However, once the training facilities and organization are established, the number of projects commissioned by other organizations would likely increase and the financial foundation would be strengthened as a result.

(2) Recommendations

Follow-up cooperation to develop the higher diploma course of which technology transfer was delayed was recommended.

7. Follow-up Situation

Following the above-mentioned recommendation, a two-year Follow-up Cooperation was implemented. As a result of that Follow-up Cooperation, the project also achieved its project also purpose for higher depuroma course .

Jomo Kenyatta University of Agriculture and Technology (Bachelor Degree)



Project Site Nairobi

1. Background of Project

The Government of Kenya outlined a policy to establish a high technology education system that would train engineers for nation building. To realize this aim, in February 1977, the Kenyan Government requested cooperation from the Japanese Government to establish the Jomo Kenyatta University of Agriculture and Technology (JKUAT). Responding to the request, the Japanese Government constructed school buildings and established relevant facilities under Grant Aid cooperation programs in the years 1978-1980, 1983 and 1989-1991. In addition, the Japanese Government carried out a Project-type Technical Cooperation in support of the diploma course (technology education course) in three departments (horticulture, agricultural engineering, and food engineering) of the Faculty of Agriculture, and in three departments (civil engineering, mechanical engineering, electronics and electrical engineering) of the Faculty of Engineering.

After establishment of the bachelor's course at the JKUAT, the Government of Japan launched another Project-type Technical Cooperation program in three departments in each of the Faculties of Agriculture and Engineering as well as in the Department of Computer Science of the Faculty of Science. The initial period of cooperation was extended two years from April 1995 and then a three-year Follow-up cooperation program began in April 1997. Particular target issues were enhancement of the University management system and promotion of research and community-based development. This evaluation focuses only on the Follow-up cooperation of the last three years.

2. Project Overview

(1) Period of Cooperation

April 1997-April 2000 (Follow-up period)

(2) Type of Cooperation

Project-type Technical Cooperation

(3) Partner Country's Implementing Organizations

Ministry of Education, Science and Technology

Jomo Kenyatta University of Agriculture and Technology (JKUAT)

(4) Narrative Summary

1) Overall Goal

The graduates of the JKUAT contribute to the development of agriculture and industry in Kenya.

2) Project Purpose

Students from the targeted seven departments of JKUAT acquire the necessary knowledge and skills to work in the fields of agriculture and industry.

3) Outputs

- a) The management system of JKUAT is improved.
- b) Both theoretical and practical education are provided to the students enrolled in bachelor's courses.
- c) The quality of teachers is improved.
- d) Facilities and equipment necessary for the course work and research activities are improved.
- e) Research activities are conducted.

4) Inputs

Japanese Side

Long-term experts	10
Short-term experts	44
Trainees received	26
Equipment	approx. 53 million yen
Local cost	approx. 74 million yen

Kenyan Side

Counterparts	16
Land and facilities	
Local cost	approx. 876 million KSH (approx. 1,374 million yen)

3. Members of Evaluation Team

Team Leader/Civil Engineering:

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Evaluation Analysis:

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4. Period of Evaluation

10 February 2000-21 February 2000

5. Results of Evaluation**(1) Efficiency**

Inputs on the Japanese side were carried out generally as planned and contributed to accomplishing the outcomes. However, in terms of the short-term experts, difficulties arose since most were university professors who were very busy with their own work, and thus their mission period was very limited. In terms of inputs on the Kenyan side, the construction of the building for the Faculty of Science was suspended due to the shortage of the construction budget and this hindered the smooth implementation of the education and research programs.

(2) Effectiveness

A manual for developing the annual project plan was formulated and utilized, and the management system of the JKUAT was also strengthened. In all seven target departments, a bachelor's curriculum that integrated theoretical and practical approaches was also established. A total of 510 students graduated from the seven departments during the Follow-up period. The pass rate of the exit examination was high, above 90 percent in most departments. JKUAT strengthened its capacity to conduct independent research as requested by private enterprises. Based on these achievements, it was evaluated that the project purpose was generally accomplished.

(3) Impact

Due to the increased recognition of JKUAT, better students were attracted to the school and the level of graduates was upgraded as a result. The employment situation for graduates was relatively favorable for a university with a short history. Many students graduating from JKUAT attained suitable positions and were valued



Counterpart explaining their activities to evaluation team.

by their employers.

In addition, JKUAT was conducting Third-country Training Programs, which helped disseminate research findings to neighboring countries.

(4) Relevance

The Government of Kenya declared the development of industry as one of the important issues in the Eighth National Development Plan. In terms of the development of human resources in this field, JKUAT's educational policy and practical curriculum, which contained trainings at outside organizations and research activities applicable to the real world, were highly relevant to fulfilling the national policy.

(5) Sustainability

At the time of the Kenyan Government's financial crisis, the strengthening of primary and secondary education received more emphasis than that of higher education in the educational policy. Therefore, the budget allocation from the government to the national universities, such as JKUAT, was not sufficient. In 1999-2000, the annual revenue for JKUAT was expected to be 439 million shillings (approx. 688 million yen), an amount sufficient to sustain basic educational activities. However, the budget was very limited for research activities; therefore, sustainability was weak in this aspect.

6. Lessons Learned and Recommendations**(1) Lessons Learned**

The project approach, which emphasized both theory and its application to the real world, was evaluated highly by the industrial sector. This approach was recommended to future projects concerning higher education in Africa.

(2) Recommendations

Although JKUAT still had financial problems, it established the basic foundation to carry out its own activities as a university. Self-sustenance on the Kenyan side was expected and thus it was determined that the cooperation terminate as initially planned.

The Project for Improvement of the Kenya Medical Training College



Project Sites Nairobi

1. Background of Project

Kenya Medical Training College (KMTC) was the only public training institute of paramedical personnel in Kenya, and had been training 80 percent of the medical workers in the country. However, superannuation of the almost 30-year-old facilities and the lack of training instruments made it difficult to provide high-quality lessons and training in the latest medical technologies. In response to the situation, the Government of Kenya requested Grant Aid from Japan for the renovation of facilities and provision of educational equipment.

2. Project Overview

(1) Period of Cooperation

FY1996, FY1997

(2) Type of Cooperation

Grant Aid

(3) Partner Country's Implementing Organizations

Ministry of Health
Kenya Medical Training College (KMTC) and other Medical Training Colleges (MTCs)

(4) Narrative Summary

1) Overall Goal

The students of KMTC acquire proper and adequate medical skills.

2) Project Purpose

The educational environment of KMTC is improved.

3) Outputs

- a) Facilities of KMTC and three MTCs outside of Nairobi are renovated.
- b) Training equipment is provided to KMTC and 19

MTCs.

- c) A maintenance system is established in KMTC and MTCs.

4) Inputs

Japanese Side

Grant	Total 1.851 billion yen (E/N amount)
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Kenyan Side

Land

3. Members of Evaluation Team

JICA Kenya Office
(Commissioned to ALMACO MANAGEMENT CONSULTANTS LTD.)

4. Period of Evaluation

20 March 2000-31 March 2000

5. Results of Evaluation

(1) Efficiency

The renovation of facilities and the provision of equipment were implemented without any major changes or trouble; thus, KMTC and the facilities of three MTCs were renovated and equipment was provided to KMTC and 19 MTCs.

Since this project was planned with a central focus on KMTC, there were some cases where equipment not considered high in priority was provided to MTCs located outside of Nairobi. Also, there were some instances where newly provided equipment was used in old facilities because part of the renovation work of MTCs was left to the self-efforts of the Kenyan side and was excluded from

the Japanese grant aid.

(2) Effectiveness

Some of the provided equipment for MTCs was not effectively used as the systems for maintenance of the facilities and equipment that was the responsibility of the Kenyan side were not yet established. Otherwise, the facilities and equipment of the 19 schools were used effectively and the educational environment was greatly improved.

(3) Impact

The students' learning environment was improved through use of the provided equipment, allowing more opportunities for practical training. As a result, the integration of theory and practical learning was made easier. In addition, school staff members were seen to have more motivation as a result of this project.

(4) Relevance

The Eighth National Development Plan, 1997-2001, and the Poverty Eradication Plan, 1999-2015, included measures for improvement of health and medical services; and the 1996 Health Policy Framework Implementation Action Plans targeted the development of human resources related to health. Considering these policies, this project corresponded to the policy of the government of Kenya, and thus, the relevance was considered high.

(5) Sustainability

During this evaluation study, self-help efforts by the Kenyan side, including the renovation of student dormitories, were observed. However, because of the limited financial resources of the government of Kenya and the difficulty of allocating an adequate budget for maintenance activities, the maintenance center of KMTC was not yet active. Nor were workrooms to manage maintenance activities provided to all the MTCs. Thus, the system and manuals for this kind of work were not formulated. The security of independent income was recommended through the collection of course fees and payment for services.

6. Lessons Learned and Recommendations

(1) Lessons Learned

When equipment is provided, it is necessary to give adequate guidance on operation and maintenance methods at the time of delivery. Even though the equipment is basic, some kinds of equipment may be new to



Kenya Medical Training College constructed by the Project



Model of human body utilized for health education

counterpart countries.

(2) Recommendations

It was expected that the Kenyan side would enhance self-help efforts in terms of the improvement of finances. In particular, immediate establishment of the maintenance system for equipment was required. In addition, it was considered necessary to improve lessons and training for the staff of MTCs on the use of new equipment.