

# Terminal Evaluation

## Africa

### 1. Outline of the Project

<b>Country:</b>		<b>Project title:</b>	
Kenya		Farmers Training for the Promotion of Community-based Smallholder Irrigation Development	
<b>Issue/Sector:</b>		<b>Cooperation scheme:</b>	
Agricultural Engineering		In-country Training	
<b>Division in charge:</b>		<b>Total cost:</b>	
Africa Division Regional Department IV (Africa,Middle East and Europe)		47 million yen	
<b>Period of Cooperation</b>	Fiscal Years 1999 - 2003	<b>Partner Country's Implementing Organization:</b>	
		Irrigation and Drainage Branch, Land Development Division, Ministry of Agriculture and Livestock Development (The Division moved to Ministry of Water Resources Management and Development on the beginning of 2003 and changed to Irrigation and Drainage Sub-Department.) Embu Agricultural Staff Training College	
		<b>Supporting Organization in Japan:</b>	

#### Related Cooperation:

Mini-Project; The Promotion of Sustainable Community -Based Smallholder Irrigation Development in Kenya

### 1-1 Background of the Project

In Kenya, the agricultural production by self-sustaining small scale irrigation farmers accounts for 75% of the entire agricultural production of the country. Because its production methods depend on rainwater, the agricultural production was unstable and depended on the change of climate, and 55% of the residents in the rural area were suffering from poverty.

If an irrigation system were introduced, it would help stabilize the quantity of agricultural production, diversify the cultivated crops, and enable commercial crops production. However, the Kenyan government was in extremely difficult financial condition and prioritized the promotion of small scale irrigation farmers by making them organized, capable of financial management and independent operation in their irrigation development. Despite the policy of the country, the number of projects newly developed was extremely limited due to the fact that the farmers did not recognize the policy of implementing an irrigation project at their own expense and the insufficient support system. Under the circumstances, there was a strong need to implement training to the farmers in areas where irrigation had already been introduced in the fields of project implementation procedure and organizational project operation as well as of cultivation techniques.

To cope with the needs, the government of Kenya requested the government of Japan the cooperation for the training in those fields at Embu Agricultural Staff Training College.

### 1-2 Project Overview

The techniques of implementing small-scale irrigation, maintaining the system, and cultivation are transferred to the small scale irrigation farmers and extension staff through the project.

(1) Overall Goal Increase in food security amongst rural population of Kenya.

(2) Project Purpose

Promote community-based small-scale irrigation farmers.

### (3) Outputs

- 1) Farmers and extension staff increase knowledge on small-scale irrigation development.
- 2) The extension staff is able to instruct farmers appropriately.
- 3) Guidelines for the training courses are developed.

### (4) Inputs

Japanese side:

Short-term Experts	2
Local Cost	45 million yen
Trainees received	200

Kenyan Side:

Counterparts	45
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Land and Facilities

Local Cost

## 2. Evaluation Team

<b>Members of Evaluation Team</b>	JICA Kenya Office (Commissioned to: Acacia Consultant Ltd.)	
	<b>Period of Evaluation</b>	<b>Type of Evaluation:</b>
	9 January 2003 - 5 March 2003	Terminal Evaluation by Overseas Office

## 3. Results of Evaluation

### 3-1 Summary of Evaluation Results

#### (1) Relevance

The Kenyan government announced the National Development Plan and adopted sustainable economic development and poverty reduction as its main policies. The Kenya Rural Development Strategy indicated the importance of small-scale irrigation development. Therefore, the contents of the training were in line with the development policy of Kenya. According to the questionnaire survey, more than 90% of the ex-participants mentioned that the training was "very useful" or "useful".

#### (2) Effectiveness

The numbers of participants who had completed the training course were 160 farmers and 40 Frontline Extension Workers. Therefore, the target number of participants was accomplished. More than 95% of those farmers went back to continue with their agricultural activities and utilized the acquired irrigation techniques to cultivate crops. A certain number of new crops have been introduced as a result of the training course. Tomatoes and onions have been grown for commercial purposes while ex-participants tried to disseminate the knowledge and skills to their colleagues at their work place through discussions or practices. Based on the questionnaire survey, 81% of the ex-participants "routinely" or "sometimes" shared those techniques with those who were around them.

#### (3) Efficiency

The application guidebook for the training was delivered appropriately while the application and selection process of participants proceeded smoothly, and the training was commenced as planned. The Embu Agricultural Staff Training College had enough equipment and facilities, and there was no hamper for the implementation of the training. There were more than thirty lecturers,

and all of them could implement lectures as scheduled according to the developed guideline of the training, course digest (syllabus) and curriculum.

#### (4) Impact

The harvest of both food and commercial crops were increased by 80 to 100%, and the food crops were diversified successfully. The sales of cultivated crops and livestock farming by irrigation agriculture were increased, and household incomes also increased. As a result of the irrigation agriculture, the consumption of cultivated crops improved the household nutrition levels. The marketing method of the small-scale irrigation farmers improved through the contracted cultivation. The training brought various positive impacts in such ways.

#### (5) Sustainability

Since 1999, farmers have implemented many activities utilizing their income through irrigation agriculture without any financial support by others. This was achieved by the cooperation activities such as the training, the follow-ups, and the instructions given after the training. An appropriate number of staffs was allocated to the Ministry of Agriculture and Livestock Development (MOA&LD) and the Embu Agricultural Staff Training College. As a result, training courses could be implemented without outer technical support, which showed the organizational sustainability. As for the cost for implementing training, only a limited amount of funds was allocated at the time of the terminal evaluation, and the MOA&LD provided financial support. In other words, the financial sustainability was not high enough to implement training courses without outer financial support.

### 3-2 Factors that promoted realization of effects

#### (1) Factors Concerning the Planning

The development of the small-scale irrigation sector was matched with the governmental policy. There existed huge needs to horticultural crops in and outside Kenya, but the irrigation facilities were not appropriately prepared. Therefore, the irrigation potential has not been fully tapped, and the demand for irrigation services still exists. These factors lead to the relevance of implementing the training and to the realization of the effects.

#### (2) Factors concerning the Implementation Process

Japan has enough experience to implement training courses on small-scale irrigation development and to develop the capacity. This enabled the country to plan the training which met the needs of the participants.

### 3-3 Factors that impeded realization of effects

#### (1) Factors Concerning the Planning

N/A.

#### (2) Factors concerning the Implementation Process

- 1) Most farmers had no access to micro-credit (small-scale credit), so they could not afford to acquire appropriate irrigation facilities and equipment because of the lack of funds.
- 2) Underdeveloped water resources for irrigation agriculture were the major negative factors on realizing effects of the project.
- 3) In remote areas, it was difficult to have access to the market. Therefore, it was difficult for those farmers in the remote places to send their products to a market appropriate for the products.

### 3-4 Conclusion

The ex-participants are still engaged in irrigation agriculture and have applied the acquired knowledge and techniques to their work. As a result of the enhanced techniques of irrigation agriculture, the productivity of cultivated crops and livestock has been increased, and farmers' incomes have also been increased.

### 3-5 Recommendations

- (1) To cope with the region specific needs of respective participants, some of the course topics such as pig rearing, beekeeping and poultry should be designated as the core topics which all participants should learn, while others that are not basic irrigation topics should be designated as non-core topics which participants can choose to learn or not.
- (2) The curriculum, teaching materials and the course content should be reviewed regularly and updated to accommodate the emerging needs of the smallholder irrigated farming community.
- (3) The duration of the course should be increased from 45 days to 60 days to enable participants to take adequate time for

lectures and demonstration and to exchange opinions among them.

(4) Remuneration for lecturers should be introduced to motivate them.

(5) JICA should cooperate with the MOA&LD to provide the ex-participants with the forums papers or newsletters so that they can share their experiences with others.

(6) The training should be continued in the future because the number of participants was insufficient, the importance of these kinds of training was recognized and the demands to the training were increased.

### **3-6 Lessons Learned**

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(1) When planning training courses for those who are in practical fields, it is necessary to include practical activities such as demonstration, technical visits and study tours as commented by the ex-participants of the project.

(2) It is effective for farmers to participate in a training course with their respective extension officers for mutual understanding.

### **3-7 Follow-up Situation**

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The fifth training course is scheduled to commence in October, 2003.