Republic of Kenya

Ex-post Evaluation of Japanese Technical Cooperation Project

"The International Parasite Control Project in the Republic of Kenya"

Yuki Fukuda, Binko International Ltd.

1. Project Description

1.1 Background

The International Parasite Control Project (hereinafter referred to as "the Project") started as the "Research and Control of Infectious Parasitic Diseases Project" which had two main activities: one was to improve the research capacity for infectious diseases (HIV/AIDS, viral hepatitis, and opportunistic infections), and the other was to develop human resource and establish information network for parasite control. In order to be implemented more effectively in both projects, the Project was divided into two projects, the "International Parasite Control Project" and the "The Research and Control of Infectious Diseases Project", in April 2003, and both projects ended in 2006.

The Project was based on the Global Parasite Control Initiative (hereinafter referred to as GPCI). This Initiative was presented by Japanese former Prime Minister, Mr.Hashimoto at the Birmingham Summit in 1998. The Initiative proposed to establish a hub center of training courses for human resource development and information network in order to promote parasite control effectively. Additionally, the Initiative promoted school-based approach of parasite control, which is the way of eradication of parasitic diseases in Japan (for example, this approach is providing not only the pharmaceutical treatment but also health education in schools). On the basis of the Initiative, Centers of International Parasite Control (hereinafter referred to as CIPACs) were established in three countries (Thailand, Ghana, and Kenya), and the Japan International Cooperation Agency (hereinafter referred to as JICA) has started technical cooperation projects in each country. In Kenya, the Eastern and Southern Africa Center of International Parasite Control (hereinafter referred as to ESACIPAC), was established at the Kenya Medical Research Institute (KEMRI) in 2001.

JICA had implemented technical cooperation projects and Grant Aid projects at KEMRI from the late 1970s to the year 2006, and focused on infectious diseases, including parasitic diseases, for almost 30 years. During this period, KEMRI conducted the various themes of research activities including parasitology (in particular, Schistosomiasis and Filariasis), and become one of the biggest medical research institutes not only in Kenya but also in the Eastern and Southern African region.

1.2 Project Outline

Overall Goal	Control programmes and applied field research on parasite control are strengthened through capacity building of human resource development and research activities in Kenya and participating countries.
Project Objective	ESACIPAC performs the role of the center for human resource development and human/information network establishment in Kenya and participating countries in order to strengthen effective control of the targeted Parasitic Diseases (Malaria, Geohelminthiasis, Filariasis and Schistosomiasis).
Outputs	1. ESACIPAC as an international center is strengthened to carry out its mandates effectively.
	2. Appropriate strategies for control of targeted parasitic diseases, for which school health-based model is being established in Kenya, are developed.
	3. Policy makers and concerned members of the participating countries are sensitized and committed to the Project.
	4. Appropriate training to enhance human capacity is undertaken.
	5. Information and human network on parasite control is developed with the participating countries, Asia Center of International Parasite Control (hereinafter referred to as ACIPAC), Western Africa Center of International Parasite Control (hereinafter referred to as WACIPAC), international organizations and other institutions.
	6. Applied field research activities are undertaken, including application/development of appropriate tools.
Inputs 1 (at completion of the Project)	Japanese side: Experts: Six for long-term experts; Twelve for short-term experts Five for trainees received Equipment cost: 6.2 million Japanese yen Local cost: 12.19 million Japanese yen Kenyan side: 36 Counterparts Land and facilities: office and the land for the training center
Total Cost	44.3 million yen (after separation of the former project, 2003-2006)
Period of Cooperation	May 1, 2001 to March, 2003 (before separation)/April 1, 2003 to April 30, 2006
Executing Agency	Kenya Medical Research Institute (KEMRI); Ministry of Health (present Ministry of Public Health and Sanitation); Ministry of Education

[1] Inputs include before separation of the Project (2001-2003). A main activity of the former part of the Project was preparation for the training course, such as collecting information through country visits, and implementing a symposium to inaugurate ESACIPAC and to appeal for the importance of parasite control. And some activities of information network were implemented such as development of the website and publication of newsletters. These activities enabled to implement the training courses and establish information network smoothly after separation of the Project.

Cooperation Agency in Japan	Keio University, Nagasaki University; Tokyo Medical and Dental University; Ministry of Health, Labor and Welfare; International Medical Center of Japan; Japan Association of Parasite Control
Related Cooperation (if any)	Technical cooperation: Epidemics Research and Control Project (1979-1984), KEMRI Project (1985-1990), Infection Research and Control Project I (1990-1996), Infection Research and Control Project II (1996-2000), Third Country Training Programme on Blood Safety (1998-2001 and 2003-2007) Grant Aid: KEMRI Construction Project (1982-1983), KEMRI Improvement Project (1997), Infection and Parasite Control Facility Construction Plan (2004)

1.3 Outline of Terminal Evaluation

1.3.1 Achievement of Overall Goal

Two impacts were reported in the terminal evaluation report. One is on Kenyan national policy and programmes such as the national school health program and the national school health policy. The other is on people in the model site of school health (for example, decrease in the parasite infection rate and behavioral change).

1.3.2 Achievement of the Project Objective

The terminal evaluation concluded that the Project was nearly successful because four indicators (1. Human resource development in Kenya and participating countries; 2. Establishment of information networking at ESACIPAC; 3. Development of guidelines for parasite control in Kenya; and 4. Applied field research) were almost accomplished. In particular, Indicator 1 and Indicator 3 were remarkably achieved.

1.3.3 Recommendations

There are five recommendations made in the terminal evaluation, which focus on a training course and its expansion to participating countries.

① The international training modules need to be revised in order to include the concept of GPCI by Japanese and Kenyans.
② A report on the activities of the model site for school based approach needs to be made.
③ Follow-up cooperation for participants in international training courses needs to be considered.
④ ESACIPAC needs to strengthen the Third Country Training Programme in order to make use of the training center which is constructed by the Japanese Grant Aid project.
⑤ It is necessary to be supported by international organizations in order to expand the parasite control into participating countries.

2. Outline of the Evaluation Study

2.1 External Evaluator

Yuki Fukuda, Consultant, Binko International Ltd.

2.2 Duration of Evaluation Study

Duration of the Study:	December 2009 to November 2010
Duration of the Field Study:	March 15, 2010 to March 23, 2010;
	May 23, 2010 to May 29, 2010

2.3 Constraints during the Evaluation Study

As information on the plan of the Project is not available, it was impossible to analyze the efficiency with comparison between the plan and the actual performance. Hence, the efficiency is analyzed with evidences from some project documents and interviews.

3. Result of the Evaluation (Overall Rating: A)

3.1 Relevance (Rating: a)

3.1.1 Relevance with the Development Plan of Kenya

The consistency between the Project and the Development Plan of Kenya is high.

The Kenya Poverty Reduction Strategic Paper (2003) mentions two development policies related to the Project. One is human resource development in education and health. The other is importance of cross-sectoral cooperation for public health. In addition, specific policy on parasite control is stated as one of school health programs in National Health Sector Strategic Plan II (2005-2010); and National Education Sector Support Program (2005-2010), both of which were enforced during the Project.

Accordingly, the relevance with the Development Plan of Kenya is high, as the Project is accordant with poverty reduction policy, health policy, and education policy.

3.1.2 Relevance of the Development Needs of Kenya

The consistency between the Project and needs in Kenya is high.

According to the health management information system (2002), the national major cause of outpatient morbidity was malaria (first place in total outpatient morbidity) and other intestinal worm diseases (fourth place in total outpatient morbidity). This fact leads to the assumption that the parasitic diseases targeted are common among Kenyans.

Also, the questionnaire filled in by the Executing Agency mentions that the prevalence of parasitic diseases is quite diverse in Kenya. For example, there are few cases of malaria in Nairobi City and some parts of Central and Rift Valley Provinces, seasonal transmission can be seen in parts of the Central, Eastern, and North Eastern Provinces, and the Coast, and Western Provinces and parts of Nyanza have stable transmission. Soil-transmitted helminthiasis and schosistomiasis are common in the Western, Nyanza, Central, Eastern, and Coast Province, and the rate of lymphatic filariasis is high in the Coast Province.

Although all targeted parasitic diseases are not prevalent in all areas of Kenya, the infection rate and the outpatient morbidity are high, therefore the Project is accordant with the Development Needs in Kenya is high.

3.1.3 Relevance with Japan's ODA policy

The Project is based on GPCI, which was advocated in 1998. Additionally, following two initiatives, the Okinawa Infectious Disease Initiative (2000) and Health and Development Initiative (2005) include parasite control based on GPCI.

The Project is based on one of the important issues stated in Japanese initiatives for health; therefore the relevance with Japan's ODA policy is high.

This project has been highly relevant with the country's development plan, development needs, as well as Japan's ODA policy, therefore its relevance is high.

3.2 Effectiveness (Rating: a) [2]

3.2.1 Project Outputs

3.2.1.1 Output 1

At completion of the Project, Output 1, "ESACIPAC as an international center is strengthened to carry out its mandates effectively", was uncompleted partly as some indicators of the total four (1. Center activities are institutionalized, 2. Terms of references are clearly defined, 3. Steering committee is constituted, and 4.Fulltime personnel are identified, assigned, and appreciated) were not identified.

First, during the Project, ESACIPAC activities were almost institutionalized (achievement of Indicator 1). ESACIPAC was established in 2001 and the former director of KEMRI announced that ESACIPAC is the eleventh center of KEMRI at the Board of the Management. In 2002, ESACIPAC held an international symposium to inaugurate the center, and invited people from Japan, international organizations and CIPACs in Thailand and Ghana. In 2003, ESACIPAC started to manage its role with three divisions: Training; Research activities; and Information Network.

However, a definition of terms of references (Indicator 2) and the situation of full-time personnel (Indicator 4) were not identified. Although KEMRI tried to increase ESACIPAC full-time personnel, there were one director, two researchers (including the director), seven technologists, two field workers, and 15 administrative staff (such as secretaries and drivers) at completion of the Project. Almost all researchers involved in the Project came from another center in KEMRI and left ESACIPAC for their original center after the Project. Also, there was no written terms of references, thus it is hard to say that terms of references were clearly defined.

At last, a steering committee by directors of centers in KEMRI was not constituted (Indicator 3). According to project documents, prospective members of the potential steering committee

[2] Sub-rating in "Effectiveness" includes evaluation result of "Impact".

were so busy that the committee could not have organized during the Project. Instead, a Project implementation committee was held regularly by the Project team.

Accordingly, the achievement of Output 1 was limited at completion of the Project.

3.2.1.2 Output 2

Output 2, "Appropriate strategies for control of targeted parasitic diseases, for which school health based model is being established in Kenya, are developed." was achieved. Output 2 had two indicators: 1. Guidelines for parasite control are developed; and 2. Model project(s) for parasite control in Kenya is/are implemented in schools.

First, guidelines for parasite control, "National Worm Control in School-Age Children" were developed (achievement of Indicator 1). There are two types of guidelines: one is a "Guide for district level managers; and the other is the "Teacher Training Kit". Both guidelines were approved by the Ministry of Education and the Ministry of Health in 2004.

Second, a model project in schools was implemented in Mwea Division, Kirinyaga District, and Central Province (achievement of Indicator 2). The model project had three components of parasite control in schools: the de-worming program; environment and sanitation; and health education.

Guidelines for parasite control were developed by ESACIPAC and accepted by ministries, also the model project for parasite control in schools was implemented; therefore Output 2 was achieved.

3.2.1.3 Output 3

Output 3, "Policy makers and concerned members of participating countries are sensitized and committed to the Project", has a discussing point mentioned below. Output 3 had four indicators: 1. Country visit; 2. International workshops; 3. Participants of training course are nominated; and 4. Returning participants are assigned to the parasite control program.

The Project team visited participating countries from 2001 to 2006 (achievement of Indicator 1). International workshops were organized with the World Health Organization Regional Center for Africa (hereinafter referred to as WHO-AFRO) in June and October 2003 (achievement of Indicator 2). ESACIPAC held three international training courses, and each training course had participants from participating countries (refer to Table 1 in 3.2.2). Some activities organized by ex-participants were recognized in almost all countries (achievement of Indicator 3 and 4). In particular, Tanzania, Zambia, Uganda and Zanzibar[3] implemented activities for school health and parasite control with assistance from international organizations and NGOs.

However, according to some Project documents and interviews, it was pointed out that the Project had less impact on participating countries than other two International Parasite Control Projects because no small-scale pilot project, which was the main task of GPCI, had started in

[3] One part of United Republic of Tanzania. Zanzibar has its own judicature, legislation, and administration.

these countries during the Project in Kenya. Comparing the Project Design Matrix (hereinafter referred to as PDM4) of the Project in Kenya with those of Thailand and Ghana, PDMs for Thailand and Ghana mentioned concrete activities and/or indicators in participating countries. In case of the Project in Kenya, as the PDM did not state any clear activities or indicators in participating countries, it would be difficult for people involved in the Project (such as Japanese experts, counterparts and JICA offices) to set a common goal. Hence, in case a project requires outputs in participating countries, it is necessary to define specific activities and/or indicators at the beginning of a project and to share them with people involved in a project. .

Although there are some comments that impact on participating countries is limited, it can be said that Output 3 was achieved because four indicators aimed to be goal in the PDM were identified.

3.2.1.4 Output 4

Output 4, "Appropriate training to enhance human capacity is undertaken." was achieved. Output 4 had three indicators: 1. Training curricula and materials are developed and utilized; 2. The center offers at least one international and one in-country course each year; and 3. The field sites for training are established and utilized.

First, training curriculum and materials were developed and utilized (achievement of Indicator 1). Developed curriculum and materials were different between international training course and in-country training course. A training curriculum and materials for the in-country course, such as health education materials for teachers and students, were developed and a training curriculum for health education was developed. However, while a curriculum for the international course was developed by collaborative work with WHO-AFRO, materials were not developed. Instead, ESACIPAC distributed handouts to participants if facilitators gave permission.

Second, ESACIPAC offered one international and one in-country course every year during the Project period (achievement of Indicator 2). Both international and in-country training were implemented three times. In-country courses held in Mwea division focused on health education and de-worming activities, and targeted at teachers and health personnel. The international training courses focused on school based parasite control, and each training course had about 20 participants.

Third, the field sites for training were established and utilized (achievement of Indicator 3). Each international training course included field site activities (the first training course used Kismu as the field site, and the second and the third training course were in Mwea Division.)

As training curriculum and materials were developed and utilized, and ESACIPAC offered one international training course with a field site activity and one in-country training course each year, Output 4 was achieved.

---

[4] A framework for planning, implementing, monitoring, and evaluating projects. (Reference: JICA evaluation guideline.)

3.2.1.5 Output 5

Output 5, "Information and human network on parasite control is developed with the participating countries, ACIPAC, WACIPAC, international organizations and other institutions." was almost achieved. Output 5 had five indicators: 1. WEB page is uploaded and maintained; 2. Visits among centers exchanged; 3. Visits to international organizations and institutions; 4. Newsletters are published; and 5. Information between participating countries and ESACIPAC is exchanged.

The official website opened in 2003; however, it was hardly updated during the Project (Indicator 1). Visits among centers exchanged often because each training course had participants from WACIPAC and/or ACIPAC, and some Kenyan counterparts went to both centers in order to attend their workshops or training courses (achievement of Indicator 2). ESACIPAC visited international organizations and institutions such as WHO-AFRO (achievement of Indicator 3). Moreover, ESACIPAC invited some staff from such organizations as facilitators of the training course and as observers of de-worming activities. Newsletters were published regularly (achievement of Indicator 4), and by completion of the Project 16 newsletters were distributed to other centers of KEMRI, ministries, international organizations and participants of the training courses. Information was exchanged through training courses, such as country information and participants' contact information (achievement of Indicator 5). ESACIPAC made reports on international training courses with these collected information. Additionally, there were 80 key persons for parasite control at completion of the Project.

Although the website was not updated regularly, there were visitors among CIPACs and international organizations, newsletters were published, so far information was exchanged. Therefore Output 5 was almost achieved.

3.2.1.6 Output 6

Output 6, "Applied field research activities are undertaken, including application and development of appropriate tools." was achieved. Output 6 had two indicators: 1. Research tools are applied/developed and used for parasite control; and 2. Findings are disseminated.

Three applied field research activities were conducted (achievement of Indicator 1), which were: 1. Entomological studies for Malaria in Mwea; 2. Evaluation of the treatment effect for schistosomiasis and soil-transmitted helminthiasis in Kwale and Mwea School; and 3. Filariasis activities in Kwale to determine treatment coverage, monitoring the effect of MDAs at sentinel sites, and spot-checking.

These findings were disseminated (achievement of Indicator 2). They were prepared for use in 11 articles, and three of them had already been submitted to the committee in KEMRI at completion of the Project. Also, some findings were presented at the Africa Health Science Conference.

As field research activities were conducted and these findings were disseminated, Output 6 was achieved.

3.2.2 Achievement of the Project Objectives

3.2.2.1 Indicator 1

Indicator 1, "The personnel in charge of parasite control programs in Kenya and participating countries have been successfully trained by the center", was achieved. Three international training courses were held, and each course had participants from both Kenya and participating countries. Table 1 indicates that the themes of the training courses, the number of participants and their occupations.

Table 1. Participants and Countries in International Training Courses

1. Strategic Planning for Parasite Control			2. School-based Parasite Control			3. School-based Parasite Control		
Country	No.	Occupation	Country	No.	Occupation	Country	No.	Occupation
Kenya	3	MOH	Kenya	2	MOH MOE	Kenya	5	MOH MOE
Tanzania	2	MOH	Tanzania	1	MOE	Tanzania	3	MOH MOE
Botswana	2	MOH	Botswana	3	MOH MOE	Botswana	1	MOH
Zimbabwe	2	MOH	Zimbabwe	1	MOH	Zimbabwe	2	MOH MOE
Uganda	2	MOH	Uganda	2	MOE	Uganda	1	MOE
Zanzibar	2	MOH	Zanzibar	2	MOH MOE	Zanzibar	2	MOH MOE
Zambia	1	MOH	Zambia	2	MOH MOE	Zambia	4	MOH MOE
Malawi	2	MOH	Malawi	1	MOH	Malawi	3	MOH MOE
Ghana	1	MOH	Ghana	1	WACIPAC	Ghana	1	WACIPAC
			Thailand	1	Mahidol Uni.	Mozambique	1	NGO staff
Total	17		Total	16		Total	23	

References: The questionnaire of the ex-post evaluation and reports by ESACIPAC
MOH: Ministry of Health; MOE: Ministry of Education

As Table 1 shows, 56 officers from the ministry of health, the ministry of education, CIPACs and NGO in 10 countries and Zanzibar participated in the training courses organized by ESACIPAC.

3.2.2.2 Indicator 2

Indicator 2, "Information collected by ESACIPAC from established network activities is well used for effective parasite control." was achieved. ESACIPAC established three types of information network, which were a human network, website and newsletters. A human resource network was established through three international training courses. Not only participants' contacts information, such as e-mail address and postal address, but also country information on parasitic diseases was compiled in the report on each international training course. In addition, the Project team visited participating countries in order to exchange information on parasite control with ex-participants and JICA country offices in 2005. The official website was developed in 2003, but it was not been regularly updated during the Project. Sixteen newsletters were published, and they were distributed for other centers in KEMRI, ministries, international organizations, and participants of the international training courses.

As ESACIPAC established three types of network and exchanged information with participating countries and international organizations, Indicator 2 was achieved.

3.2.2.3 Indicator 3

Indicator 3, "School health guidelines is developed based on the model parasite control and are adopted by the ministries concerned in Kenya." was almost achieved. At completion of the Project, although a draft of the school health guideline was completed, guidelines were not approved yet by concerned ministries. Therefore, Indicator 3 was nearly achieved.

3.2.2.4 Indicator 4

Indicator 4, "Applied field research activities for parasitic diseases control are carried out as stated in the ESACIPAC documents." was achieved because Project documents and questionnaires mentioned three field research activities were conducted during the Project.

The Project has largely achieved its objective; therefore its effectiveness is high.

3.3 Impact

3.3.1 Achievement of Overall Goal

The overall goal, "Control programs and applied field research on parasite control are strengthened through capacity building of human resource development and research activities in Kenya and participating countries.", is almost achieved. The Overall Goal had five indicators: 1. Appropriate strategies and tools are developed for improvement of the control programs on the targeted parasitic diseases; 2. Policies on parasitic diseases control are enhanced and articulated; 3. Currently lowly-ranked parasitic diseases are ranked higher; 4. The personnel in-charge of control programs in parasitic diseases in Kenya and participating countries are substantially trained; and 5. Burden of parasitic diseases is reduced. Each indicator is accomplished as follows:

First, appropriate strategies and tools have been developed for improvement of parasite control (achievement of Indicator 1). This strategy is de-worming activities in schools by teachers. In addition, a manual for the training course in de-worming activities by teachers has been developed, and this strategy is utilized in other areas in Kenya. Also, policy on parasite control has been enhanced and articulated (achievement of Indicator 2). Parasite control programs are included in some national policies and programs such as National Health Sector Strategic Plan II (2005-2010) and National Education Sector Support Program (2005-2010). Moreover, national school health policy and national school health guidelines were enforced in 2009, and both include school based parasite control. And low-ranked parasitic diseases have been ranked higher (achievement of Indicator 3). National Health Sector Strategic Plan II mentions that parasite control is a special service for children aged six to twelve.

Second, personnel in charge of parasite control programs in Kenya and participating countries have been substantially trained (achievement of Indicator 3). After completion of the Project,

two types of international training course have been held every year: one is the Third Country Training Programme (hereinafter referred to as TCTP) by JICA; and the other is the training course with Partnership for Child Development (hereinafter referred to as PCD). While these two training courses have a common theme, the targeted participants are different. TCTP is for district-level managers from health sector and education sector, and PCD is for ministry officers, experts in education and public health from NGOs. Finally, according to the questionnaire, the infection rate of parasitic disease in the model site has been decreasing (achievement of Indicator 5). For example, in Mwea Division, the infection rate of STH was declined from 18.7% (2004) to 0.2% (2007), and infection rate of schistosomiasis was from 47.9% (2004) to 5.4% (2007). Also, in the Kwale Division, the infection rate of filariasis decreased from 10.5% (2003) to 0.9% (2009).

As mentioned above, it can be said that the overall goal of the Project was almost achieved.

3.3.2 Other Impacts

Apart from the overall goal, four impacts are identified: 1. Impact on implementation of training courses by the Grant Aid project; 2. Impact on the model site (Mwea Division); 3. Impact on other areas in Kenya; and 4.Other impacts.

First, impact on implementation of training courses by the Japanese Grant Aid project is reduction in training fees and income earned through the rental fees for the training center. The training center was constructed by Japanese Grant Aid, and is used by ESACIPAC to hold its own training courses or workshops. According to an interview with the Executing Agency, the training center is utilized by another center in KEMRI and international organizations. Some organizations need to pay a rent fee, and the income enables ESACIPAC to maintain and improve the facility of the training center. Thus, two positive impacts are identified: one is reduction in training fees (ESACIPAC need not to pay for a training place); and the other is income earned by rental fees (used for maintaining and improving the training center).

Table 2: Training Center Usage

Currency: Kenyan shilling

	2006	2007	2008	2009
Days per year	149	105.5	82	84.5
Income by rental fee	1,955,193	3,182,380	1,990,080	791,300

Reference: Document made by ESACIPAC at the ex-post evaluation

Second, impact on the model site (Mwea Division) has been identified since the terminal evaluation. Health staff and teachers in Mwea Division mentioned some positive impacts on health status and behavioral change in the community. These impacts are follows:

- Sustaining the low prevalence of parasitic diseases and increasing parents consulting health workers about treatment for parasitic diseases.
- Decreasing absence rate and improved academic and sports performance among school children

- Wearing shoes when they go outside and washing their hands before eating and after using the toilet
- Declining rate of parasitic diseases among school children due to implementation of the national de-worming program

Third, impact on other areas in Kenya is the implementation of the national de-worming program. The de-worming activity in Mwea Division is utilized for other areas in Kenya. Along the national worm control guideline approved in 2004, the Kenyan Government implemented a de-worming activity for 350 million children in five prefectures in 2009, and this activity will be carried out in 2010 (at the ex-post evaluation in May 2010). In addition, an international NGO, "De-worm the World", made a documentary film in Mwea Division, which is used for promoting parasite control in other countries.

Last, other impact is contribution to international society by activities based on GPCI, including ESACIPAC activities. According to interviews with people concerned with the Project, the commitment to control of parasite diseases including malaria was very low before the Initiative. At the summit mentioned above, a few representatives understood the importance of parasite control because HIV/AIDS was considered to be a more urgent issue. Under this condition, GPCI commenced, and international society committed itself to GPCI. For example, the World Health Organization established a section entitled "Neglected Tropical Diseases: NTDs", and performs an important role in parasite control in Kenya.

Accordingly, some positive impacts have been identified in addition to the achievement of the overall goal. No negative impact has been reported.

3.4 Efficiency (Rating: b)

3.4.1 Input

Inputs	Plan	Actual Performance
(1) Experts	N/A	Six for Long term Twelve for short term
(2) Trainees in Japan	N/A	5 trainees Parasitology, information networking and GIS
(3) Third Country Training Programme	N/A	
(4) Equipment	N/A	Computers, vehicles, equipments for the laboratory
Total Cooperation Cost	N/A	43.3 million Japanese yen
Total Local Cost	N/A	Almost 2.6 million Japanese yen

3.4.1.1 Elements of Inputs

According to Project documents, Japanese long-term experts were engaged in the Project as planned. There were six Japanese long-term experts: one chief advisor, one coordinator, two experts in parasite control, one expert in public health and one expert in school health. The chief advisor and the coordinator worked for whole period of the Project. The two experts in parasite

control were replaced to an expert in public health and an expert in school health at the middle of the Project. The number of short-term experts was 12, and they were in charge of facilitating the training course in 2003 and in 2004, field research in Mwea and Kwale and Project management in 2005. The number of short-term experts was lower than the plan except the year of 2005.

The questionnaire says that procured equipment appropriate in terms of quantity and quality. However, Project documents mention that there were some cases where the timing of procurement was not appropriate. For example, some equipment for a laboratory had not been used for a long time because equipment had been procured earlier than completion of the Grant Aid project. Furthermore, other equipment was the same as that procured by the Grant Aid project.

Trainees in Japan needed some improvements. The Project document mentions that one of five trainees was never involved in the Project after his training in Japan because he went to another country as an overseas student.

As the improvement of project input with equipment and trainees in Japan was desired for good efficiency, it can be said that some parts of elements of Inputs were inappropriate.

3.4.1.2 Project Cost

In total, Japan provided Kenya 44.3 million Japanese yen for the Project (from 2003 to 2006). As information on the planned Project cost is not available, it is difficult to compare this amount with that of the project plan. With this report, the financial situation will be analyzed with project documents and interviews.

According to project documents and interviews, it might cost much to implement de-worming activities, one of three components of school based parasite control, in Mwea Division. The Project in Kenya implemented de-worming activities with all elementary schools in Mwea Division (while other two international parasite control projects did only with some elementary schools in model sites). The Project documents indicate that cost of de-worming activities in Mwea was almost same as that of the international training course. And, one report by a long-term expert mentions that cost of de-worming activities could be reduced if the way of some activities was improved. For example, teachers are trained in various places in order to cut down transportation fees and allowances and stool examinations are implemented in all schools, but de-worming activities are implemented in schools where over 10% of children are infected by parasitic diseases. Especially, the report states that the training fee for teachers could be reduced by one-sixth if the way was improved. Hence, it is possible that de-worming activities are implemented with lower cost.

As it is possible to achieve the same output with lower cost for some activities, it is considered that the Project could be implemented effectively with less project cost.

3.4.1.3 Period of Cooperation

The Project was implemented from April 2003 to April 2006 without extension of the Project. However, the Executing Agency pointed out that the duration was too short to eradicate parasitic diseases since it took many years to combat parasitic diseases in Japan. The aim of the Project was not eradication of parasitic diseases but human recourse development for parasite control. Although three years are too short to eradicate all parasitic diseases, it is appropriate to implement technical cooperation for human resource development.

Some of the inputs (elements of inputs and period of cooperation) are appropriate for producing outputs and achieving the project objective, therefore efficiency of the Project is fair.

3.5 Sustainability (Rating: a)

3.5.1 Related Policy towards the Project

Sustainability of related policy towards the Project is quite high.

National school health policy and national school health guideline were enforced in 2009. Both policies include school based parasite control. Also, National Health Sector Strategic Plan II (2005-2010) mentions that parasite control is important component for school-aged children. National Education Sector Support Program (2005-2010) includes the de-worming program in schools, and this program was implemented for about 350 million children in 2009. Additionally, the Kenyan prime minister introduced the de-worming program as a national program at the World Economic Conference in Davos in 2009. Teachers are trained in order to implement de-worming activities, and guidelines developed by ESACIPAC (National Worm Control in School-age Children) are utilized. Also, these guidelines are specified in national school health policies, and according to a Japanese expert in school health, guidelines were reprinted at the beginning of 2010.

As school based parasite control is included in the national policies and program and the guidelines developed by ESACIPAC are utilized, sustainability of related policy towards the Project is high.

3.5.2 Institutional and Operational Aspects of the Executing Agency

Although ESACIPAC needed to improve its own management at completion of the Project, two remarkable points can be recognized at the ex-post evaluation research. The first is the establishment of a steering committee. At present, the steering committee has 14 members, and it is held regularly (almost once a month). The second is the increase in ESACIPAC personnel. Full-time staff have been assigned (10 for research activities, 15 for training courses and four for information network), and ESACIPAC has about 40 staff including administrative officers (such as secretaries and drivers). There are no written terms of reference; and each officer has his/her own appointment letter signed by KEMRI instead. A case of resignation is rare, and only two officers including the retiring officer have left their position since completion of the Project.

A steering committee was established and the number of ESACIPAC staff was increased, therefore institutional and operational sustainability is high.

3.5.3 Technical Aspect of the Executing Agency

Technical sustainability of the Executing Agency is high.

ESACIPAC has three technical abilities (training course, research activities and information network), which important to perform as a regional center for parasite control.

After completion of the Project, ESACIPAC organized both international and in-country training courses. First, there are two types of international course: one is TCTP by JICA; and the other is the training courses with PCD. The theme of TCTP was school based parasite control, and the PCD training course was a comprehensive approach to school health (FRESH framework). The PCD training course has been joined by WACIPAC since 2009. According to interviews with ESACIPAC staffs, this training course was held at WACIPAC, and in 2011, it will be at ESACIPAC. Two types of in-country training courses were held: one is how to implement a de-worming program for teachers and personnel of health sector at the district level, and this training course has been held once a year since 2006; and the other is the theme of "a health promoting school" for teachers in Mwea Division (2006).

ESACIPAC has also technical ability on research activities. Four researches activities are being conducted at the present. And from now own, nine articles are being published in some academic journals.

As for information network, although it needs some improvements, ESACIPAC has information on ex-participants of training courses. Improvement points are in the website and newsletters. The website of ESACIPAC developed by the Project was closed because KEMRI revised its website. ESACIPAC has pages within the KEMRI website, but the last update was in 2006. Also, newsletters have been published since completion of the Project; however, there is no newsletter in 2010 (a communication officer of ESACIPAC mentioned that one issue would be seen in 2010).

Almost all procured equipment is utilized. This equipment comprises personal computers, copy machines, vehicles and microscopes. Microscopes are managed by technologists. These microscopes are used in training courses, and people from outside ESACIPAC can use them with the permission of an ESACIPAC director.

Three technical abilities are identified and procured equipment has been managed continuously; therefore technical sustainability of the Executing Agency is high.

3.5.4 Financial Aspect of the Executing Agency

ESACIPAC's revenue is budget from KEMRI and financial support from international organizations. Since completion of the Project, KEMRI has allocated budget for personnel, field research activities (if the proposal is accepted), and others. In case training courses are planned (for example TCTP), KEMRI allocates the budget. The budget for 2010-2011 had been

reviewed by KEMRI in the second field research of the ex-post evaluation (May, 2010). Table 3 indicates expenditure of ESACIPAC since completion of the Project.

Table 3: Financial Information on ESACIPAC

Currency: Kenyan shilling

	2006/2007	2007/2008	2008/2009	2009/2010
Personnel	17,098,392.30	189,420,872.60	23,002,909.90	20,750,462.40
Training course	1,591,800	1,409,420	1,875,580	-
Field research	710,000	718,000	580,000	630,000
Others	812,000	475,000	674,000	614,000

Reference: The questionnaire at the ex-post evaluation

ESACIPAC can obtain stable budget from KEMRI; however, it still needs financial aid from international organizations in order to implement training courses and research activities. Fortunately, ESACIPAC has collaborated with these organizations since the Project period. In particular, it costs much to hold international training courses because traveling fees, allowance, and tuition for the course should be arranged. Therefore, international training courses with PCD require that all participants pay their training fees and traveling fees. Almost all of the participants have to look for sponsorship from ministries and international organizations. There are some international organizations which became sponsorship, such as the United Nations Children's Fund (UNICEF), the World Food Program (WFP), and Save the Children, and these organizations.

As KEMRI allocates necessary budgets; furthermore some organizations support ESACIPAC financially, financial sustainability of the Executing Agency is high.

3.5.5 Continuity of Effectiveness/Impact

ESACIPAC can be seen as a regional center for parasite control after the Project from technical aspect of the Executing Agency such as human resource development, research activities and information network.

First, training courses have been implemented once a year after completion of the Project. From 2006 to 2009 two training courses (including TCTP by JICA) have been held each year, and the theme of the training courses was school health and parasite control. The sustainability of training courses is high because ESACIPAC collaborates with international organizations and WACIPAC. And, as described in the previous section, some international organizations become sponsors for training courses. In-country training courses targeted ministry- and district-level officers, and theirs theme was de-worming activities and health education.

Second, although information network is limited, some of them are available. The ESACIPAC website developed by the Project was closed when KEMRI started to take charge of all Internet issues, and the KEMRI official website has a page for ESACIPAC. Additionally,

there are more than 400 people in the human recourse database, including ex-participants of the training courses, and they exchange information through e-mail.

Third, research activities have been conducted since completion of the Project. And nine articles have been published in some academic journals.

Last, according to the questionnaire and interviews ESACIPAC is considered as a regional center for parasite control. After completion of the Project, ESACIPAC has increased its personnel gradually, and continues to implement training courses and research activities. In addition, ESACIPAC has the will to carry on international training courses of parasite control through school health in the future. ESACIPAC recognizes that it is important to make a strategic plan for funding in order to maintain ESACIPAC as an international center. However, there are two weaknesses: one is weak information network; and the other is the lack of follow-up for participants.

As ESACIPAC starts to perform a role of regional center for parasite control through human resource development, information network, and research activities, it can be concluded that the effect of the Project is sustainable.

No major problems have been observed in the policy background, the structural, technical, financial aspects of the executing agency; therefore sustainability of the Project effect is high.

4. Conclusion, Lessons Learned and Recommendation

4.1 Conclusion

This Project aimed at human resource development in the health sector and parasitic control, which were relevance with Development Plan and needs of Kenya and with Japan's ODA policy. While efficiency of the Project needed some improvements, ESACIPAC, the center for human resource development and information network, did its best to institutionalize the center, implement training courses, conduct research activities and establish information network. Moreover, not only a great impact on national policy in Kenya and international society but also the sustainability of ESACIPAC is identified.

In light of the above, this Project is evaluated to be (A) highly satisfactory.

4.2 Recommendation to the Executing Agency

It is recommended that ESACIPAC make a strategic plan for funding in order to implement training courses and research activities. Additionally, it is desirable for ESACIPAC to share and discuss this strategic plan with governmental organizations and international organizations in order to execute this plan.

4.3 Lessons Learned

The ex-post evaluation leads to two lessons learned for people involved in similar projects in the future.

① PDM for technical cooperation projects that require outputs in participating countries.

In case of the Project, there is a difference between opinions about impact on participating countries among people involved in the Project. This fact results from no specific activities and/or indicators mentioned in PDM. Therefore, it is useful to mention concrete activities and/or indicators in PDM if outputs and/or an overall goal are required in participating countries.

② Collaboration with donor organizations during implementing projects.

ESACIPAC has continued its activities with technical and financial support from donor organizations since completion of the Project. It is considered that collaboration with donor organizations during projects is beneficial for an Executing Agency in order to sustain its activities.