

Long-term Technical Cooperation~Technology and Education Sector~

Study period from March 2008 to October 2008



Summary of the Evaluation

This study is a comprehensive analysis of the evaluation results for long-term technical education sector projects. It targets higher education institutions and a vocational training institution in Thailand, Indonesia, Kenya, and Senegal. An inter-project analysis of the results revealed the merits and demerits

of long-term cooperation. The study also identified points related to the establishment of the objective for long-term cooperation and the necessary cooperation period, and the establishment of the cooperation scenario.

Background and Objectives of the Evaluation

JICA has been recently making efforts to enhance its programs as part of a strategic framework for the implementation of effective projects. In order to provide for flexible inputs vis-à-vis the individual projects that make up the programs, JICA has been promoting the implementation of small-scale projects. However, with recent project budget reductions, projects are

tending to be downsized and shortened in general.

In the context of the recent trends, the study conducted a comprehensive analysis of the merits of large and long-term assistance, its effects, and process. Based on this analysis, the study examined how the effective cooperation based on long-term development perspectives shall take place.

The Framework and the Policy for Evaluation

The following projects were selected for this study. (parentheses indicate the cooperation period).

- **Thailand:** King Mongkut's Institute of Technology Ladkrabang (1978 - 2003 / 26 years)
- **Indonesia:** Electronics Engineering Polytechnic Institute of Surabaya (1987 - 2006 / 20 years)
- **Kenya:** Jomo Kenyatta University of Agriculture and Technology (1980 - 2003 / 24 years)
- **Senegal:** Japan Senegal Vocational and Technical Training Center (1984 - 2003 / 20 years)

The study analyzed the following four items for each cooperation program. Then an inter-project analysis was performed.

- 1) Identification of the outcomes of the project*1 due to the long-term assistance*2
- 2) Factors that contributed to and impeded the generation of outcomes from long-term assistance
- 3) Identification of the risk factors surrounding the maintenance and enhancement of the outcomes produced and obtained
- 4) Identification of the merits and demerits of long-term assistance

Evaluation Results

Inter-project Analysis

1. Major outcomes produced due to the long term cooperation

The major outcomes from long-term cooperation are summarized in the table on the next page.

2. Factor analysis (contributing factors/impeding factors/risk factors)

Contributing factors

- The major Japanese assisting institutions were universities. Through the dedicated efforts of the mentioned stakeholders, a cooperative relationship continued between the two sides beyond the cooperation period which led to ensuring self-sustainable development.

- The continuous fostering of teachers in Japan and the target countries, the cooperation policy to engage in school management from the beginning of cooperation, and the consistent continuation of Japanese cooperation due to lack of partnerships with other donors, contributed to the maintenance of the unique type of education provided by cooperation target institutions.

- The long-term cooperation covering the full cycle of introducing the curriculum, producing the first graduates, monitoring and following-up, and updating the curriculum, established a system that steadily continues to foster human resources needs of the industrial sector in the target countries.

*1. Although outcome indicates output in a JICA evaluation, outcome here refers to the "utility" of the project.

*2. "Major outcomes that were produced because the cooperation was implemented over a long period" refers to "outcomes that would not have been achieved in one project cycle (including project, extension, and follow-up cooperation) even with significant input of human resources and funds."

■ Table Major outcomes of long-term cooperation shared by case study countries

	Output brought about for the target institution (outcome)	Output brought about within the target countries or in surrounding countries / regions (impact)
Expected outcome	1. The ability to independently enhance the function of the institution with flexibility to cope with changing social and economic needs was acquired.	3. Cooperation target institutions are producing superior human resources needed by the industrial sector.
Unexpected outcome	2. By continuing cooperation until the counterpart personnel trained in Japan became core personnel, the Japanese education method was maintained as a unique characteristic of the cooperation target institution.	4. Cooperation target institutions started to implement cooperation for surrounding countries. 5. Cooperation target institutions are sharing the acquired knowledge and technology with the regional communities.

- Through the organic combination of each scheme, synergistic effects were produced. Also, teacher training was strategically planned through the Japanese Government Scholarship Program,
- The counterpart government's political and financial commitments were key to the production of long-term assistance effects.

Impeding factors

- Resignation of trained teachers.
- Difficulty in continuous dispatch of experts.

Risk factors

- Influence of the expansion of cooperation target institution in preserving the small class based practical guidance.
- Necessity of self-help efforts to improve and maintain the quality of research.
- Influence of over ageing of provided equipment and materials on education activities and research activities.

3. Difference in cooperation targeted at Asia and Africa

What the two case studies in Africa have in common compared to the two Asian case studies is that they were implemented continuously without interval. The shortage in human resources and government's financial capability prolonged the cooperation. It shows that continuous assistance was needed to make the project's effects sustainable.

On the other hand, the case studies in Asia had favorable terms

(e.g., relatively continuous economic growth, relatively appropriate budget scale and human resources). Thus, there was some interval when direct cooperation through a technical cooperation project was not provided during the cooperation period.

Furthermore, factors that add difficulty to cooperation in Africa include the followings: narrow labor market; less advance of Japanese private companies compared with Asian countries which lead to the necessity of finding the market road; difficulties arising from differences between Japan and African countries in government system and education method (African countries applies French/British systems); and difficulties in securing the dispatching of the Japanese experts.

4. Merits and demerits of long-term cooperation

Merits: Human resources development, which is the key for enhancing the institutions' foundations, can be conducted over a long time, enabling the cooperation target institution to contribute domestically and to surrounding countries.

Demerits: In all of the case studies, the final objective of the cooperation was not made clear at the beginning, and thus the scenario for achieving the objective had not been developed at the time of commencement. Therefore, while the period allotted was inevitably necessary, prolonged cooperation raised the counterpart country's expectations for the continuation of cooperation, which in some cases made it difficult to formulate an exit strategy and determine its timing.

Recommendations and Analysis

1. Setting a cooperation objective level and cooperation period

When starting a technical education cooperation project for a specific education institution, the first question to consider is until when and to what extent this cooperation should be provided. Based on careful consideration, an appropriate objective and cooperation period should be determined.

In the four case studies, if cooperation began from the establishment of a new cooperation target institution, a two-phase technical cooperation project (one phase is five years in common.) was implemented, consisting of the organizational development phase and the institution's self-sustainable phase. In the case studies, the organizational development process took five to ten years, and it took another five to ten years until the institution became self-sustainable. In the two African countries, both processes took ten years, i.e., a total of 20 years. When deciding on the cooperation period, it is also necessary to bear in mind the length of teacher training in the target country and the counterpart country's political and economic stability.

2. Setting a cooperation scenario

If long-term cooperation is deemed necessary based on the results from 1., it is necessary to establish a cooperation scenario for each cooperation objective phase. In this study, we considered the following two distinctive scenarios: A) Cooperation until the institution is self-sustainable; and B) Follow-on cooperation after the institution is self-sustainable. Additionally, it is necessary to confirm changes in social and economic needs, external conditions, and the counterpart government's commitment, and make adjustments to the scenario accordingly.

A) If cooperation is provided until institution is self-sustainable

- Commencing stage of cooperation: Analyze the present condition of the target organization (especially the necessity of teachers' capacity building), and determine target growth level of institution, as well as criteria for the target institution's self-sustainability.
- Finalizing stage of organizational development phase: Intensive financial inputs can be made if there is a need to provide facility construction, equipment provision, and large-scale teacher training. At the initial stage, dispatching of long-term experts is preferable. At the end of this phase, confirm the progress made towards self-sustainability. If the institution is fully self-sustainable, consider starting third-country training.
- Final stage of self-sustainability achievement phase: Including provision of additional equipment, inputs become less compared to organizational development phase. Implement necessary technical transfer through both long-term and short-term experts. At the end of this phase, confirm to what extent self-sustainability has been achieved, and if necessary, consider relevance of continuing cooperation. If follow-up cooperation is provided, exit strategy should be discussed.

B) If cooperation is continued after institution is self-sustainable

- Commencing stage of cooperation : Establish clear long-term objective. Consider uses of target institution (cooperation for country and surrounding countries) and exit strategy.
- Final stage of the project: Confirm progress made towards long-term objective. Consider using institution to provide human resources training for surrounding countries.