

Capacity Development and JICA's Activities

- Cooperation for Promoting **Knowledge Acquisition**

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The outcome of this study consists of three volumes. In addition to this paper, there are two other papers regarding *Capacity Development* and *Ownership*. Please refer to those in order to get the complete picture of this research project.

Introduction

This paper¹ is part of a study that aims to clarify the characteristics and effectiveness of Japanese technical cooperation (TC), and to share the findings with recipient countries, other members of the donor community, and the Japanese public. It is hoped that the study will facilitate and enhance their deeper understanding of Japan's TC. The study also hopes to make helpful contributions to the ongoing international discussion on reforming TC and knowledge-based aid.

In the 1990s, a series of reports were published which were highly critical about the effects of aid in general, and technical cooperation in particular, on the development of partner countries. These include “*DAC Principles for Effective Aid*” (OCED 1992), “*Rethinking Technical Cooperation: Reforms for Capacity Building in Africa*” (UNDP 1993) and “*Assessing Aid: What Works, What Doesn't, and Why*” (The World Bank 1998). Later research and country studies confirmed that many of their recommendations had not been implemented and many of the problems still remained. According to UNDP (2002a), TC is still frequently criticized for undermining local capacity, distorting priorities, choosing high-profile activities, fragmenting management, using expensive methods, ignoring local wishes, and fixating on targets. It is now widely accepted that technical cooperation has performed least favorably in institutional capacity building of developing countries.

In this context, this study project started at the end of 2000 in order to reexamine project type TC that has been a major target of the criticism, and to share with other countries the experience of Japanese technical cooperation. Focusing on JICA's technical cooperation, the study formulated a number of hypotheses on its characteristics and effectiveness with respect to capacity development, ownership and knowledge. The hypotheses were formulated in reference to a series of reports published in the 1990s by OECD/DAC, UNDP and the World Bank and, more markedly, the UNDP (2002a) report, the “*Capacity for Development: New Solutions to Old Problems*” in which UNDP proposes a new paradigm for capacity building. Then, consultants in 11 developing countries were asked to verify whether the proposed hypotheses could be confirmed by examining characteristics and consequences (*impacts*) of 31 selected

¹ The opinions in this paper do not necessarily reflect the views or policies of Japan International Cooperation Agency.

JICA projects. Specific projects to be studied were pre-selected by JICA as best practices.

This paper is based on these case studies as well as additional studies made in Japan through the analysis of related documents and interviews with Japanese experts involved in the selected projects.

The purpose of this paper is to examine JICA's approach to capacity development, focusing on acquisition of knowledge in partner countries. According to UNDP, a major problem of the traditional approach to capacity development is that it is based on an assumption that developing countries lack important skills and abilities, and that outsiders can fill these gaps with quick injections of know-how. However, basically JICA's approach to knowledge acquisition has not been basically based on this assumption. When Japan introduced Western knowledge and systems in the process of modernization, Japan did not replace existing capability with those produced elsewhere, but instead modified Western knowledge and systems to fit Japanese society. Because of this experience of importing, absorbing and internalizing Western knowledge as part of the modernization process, JICA's approach to technical cooperation has many elements in common with the new model proposed by UNDP. Based on the case studies of JICA's best practices, this paper attempts to explain how TC projects can promote knowledge acquisition in partner countries.

1. General Critiques of Technical Cooperation

1-1 Previous Debate over Reforming Technical Cooperation

The role of knowledge has been frequently emphasized as an important agenda for development. World Development Report (1998/1999, *Knowledge for Development*), for instance, specifically examines the way knowledge would promote economic development in developing countries, telling us to pay serious attention to reduction of the knowledge gap between advanced industrialized and developing countries. This report assumes that the developing countries would be able to catch up to the rich by filling the knowledge gap. It proposes that developing countries should imitate the rich and follow roughly the same development path towards a similar destination. Indeed, it was thought that the developing countries would be able to do

this even more rapidly. First, they are able to take advantage of the experience of their predecessors, by adopting the same proven measures and technologies. Second, they also benefit from international assistance flowing from advanced industrialized countries to developing ones – not just in the form of grants and loans but also in the form of technical cooperation.

Hence, thousands of experts and consultants of the rich countries were employed and enrolled in a number of technical cooperation projects in the developing countries. These experts and consultants were expected to transfer their skills and expertise by working with their local counterparts. A number of training programs were organized in order to provide practitioners in the partner countries with technology, skills or know-how, which are available in donor countries. According to UNDP (2002a), the underlying assumption of this current paradigm is that developing countries lack important skills and abilities, and that outsiders can fill these gaps with quick injections of know-how (UNDP, 2002a, p2). “It is considered possible to simply ignore existing capabilities in developing countries and replace them with knowledge and systems produced elsewhere - a form of development as displacement, rather than development as transformation” of existing capabilities (UNDP, 2002a, p8).

1-2 UNDP’s Proposal for a New Model of Technical Cooperation

In the UNDP publication titled “*Capacity for Development, New Solutions to Old Problem*”, UNDP claims that the current paradigm of TC (Technical Cooperation) has been based on mistaken assumptions. The gap-filling approach is rejected by the new TC paradigm proposed by UNDP. With this new paradigm, it is considered that knowledge cannot be simply transferred from donor to recipient countries, but that this knowledge should be willingly acquired by the recipients. It is also requested that donor programs have a deeper understanding of local knowledge and practice, because the most useful knowledge for the development would exist locally, possibly in a tacit form.

Due to the recent development of information and communication technology (ICT), the poor countries do not have to depend on the old types of technical cooperation with the rich countries. Through the networks, the developing countries can obtain various types of useful knowledge for their development. Moreover, the developing countries could purchase a variety of

knowledge in the market, using financial resources in the pooled TC funds, which would be supplied by donors. This financial assistance would allow the recipient governments to exercise ownership over those funds and determine what inputs, advice, training, etc. is suitable to their capacity development needs (UNDP, 2002a, p16). The traditional “expert-counterpart model” can be replaced by these new forms of knowledge acquisition. All knowledge has to be gathered and then analyzed, modified, disassembled and recombined to fit local needs. The new motto is: “Scan globally, reinvent locally” (UNDP, 2002a, p19).

2. Innovative Approaches in JICA’s Experience for Knowledge Acquisition

Japanese technical cooperation has many aspects in common with the new model proposed by UNDP. Japan has ample experience of importing, absorbing and internalizing Western knowledge as a part of its own modernizing process. Hence, from this experience, many Japanese involved in technical cooperation share the idea that knowledge cannot be simply transferred by the donors, but should be actively acquired by the recipients. They also believe that foreign knowledge should be applied based on local ones in order to internalize them to the society of the recipient countries. Therefore JICA’s approach recognizes the importance of the local values and knowledge, and thus is not based on an assumption that it is possible to replace existing capabilities in partner countries with knowledge and systems produced in Japan.

The difference between the UNDP’s new model and the Japanese TC approach is found in their views on the way knowledge should be effectively acquired (see Table 1). The UNDP report tells us that, due to the advent of new ICT, the poor countries can freely acquire knowledge “through an internet connection and the click of a mouse”. The use of the pooled TC fund also helps the developing countries acquire the most appropriate knowledge by themselves without relying on “the expert-counterpart model”.

Table 1: Difference between UNDP’s New Model and JICA’s Process Oriented Approach

	UNDP’s New Model	JICA’s Process Oriented Approach
Sources of knowledge	Local and foreign, sometimes in tacit forms	Local and foreign, sometimes in tacit forms
Effective methods of the acquisition	Local initiatives using networks and pooled TC fund	Local initiatives support by expatriate experts, etc.
Views on the acquisition	Possible to be acquired on the web or in the market	Difficult to acquire all knowledge on the web or in the market

Unlike UNDP, Japanese are not so optimistic about knowledge acquisition through the internet connection. The knowledge acquisition could be a rather difficult and time-consuming process, and tacit knowledge in particular cannot be possibly acquired from the internet. The acquisition of tacit knowledge requires direct contact. Therefore, the acquisition of such kinds of knowledge can be facilitated by external support that emphasizes the process of acquiring new knowledge. JICA’s technical cooperation focuses on this process. In the next section, Japanese process oriented approaches on how to acquire the knowledge shall be explained based on case studies of JICA’s best practices.

2-1 Identification of Local Needs and the Role of Foreign Knowledge

Identification of local needs by partner countries and the role of foreign knowledge

It is necessary for the recipients to clearly recognize local needs for their effective acquisition of knowledge. TC projects without clear understanding of local needs may lead to a lack of local commitment, which may have negative effects on project sustainability. This is likely to occur when TC proposed by donors is typically grant-based rather than loan-financed. Since recipients generally view TC as a free good, they tend to receive it without clarifying local needs and national priority. In order to avoid this situation, the process of specification of local needs by developing countries themselves is as important as the subsequent process of knowledge acquisition and its internalization. In JICA’s TC projects, Japanese experts play an important role to help the recipients identify their own local needs.

For example, in the Strengthening of Mathematics and Science in Secondary Education (SMASSE) Project in Kenya, Japanese experts have played an important role as facilitators in identifying local needs to improve the system of in-service training for teachers of mathematics and science subjects. By conducting baseline surveys with Kenyan counterparts, Japanese experts helped them realize the improvement of the way of teaching at the classroom as the most needed in the country (See example 1).

Example 1: Identification of local needs and the role of experts in the Strengthening of Mathematics and Science in Secondary Education (SMASSE) Project in Kenya

The performance of students in mathematics and science has continued to pose a major challenge to all concerned with education in Kenya. Several causative factors have been cited and several possible solutions have been suggested. This concern led to commencement of the Strengthening of Mathematics and Science in Secondary Education (SMASSE) project, which started in July 1998. Japanese experts have played an important role as facilitators to internalize the knowledge. The purpose of this project is to improve the system of in-service training for teachers of mathematics and science subjects. Before starting the training program in selected pilot districts, the experts spent several months to prepare and execute detailed baseline surveys in these districts in cooperation with Kenyan counterparts. The findings of these surveys helped them identify actual areas which require improvement in the local secondary education of mathematics and science subjects. Rather than lack of good facilities and equipment that was regarded as the basic problem in Kenya's education, the survey results indicated that their fundamental need was improvement in the way of teaching in the classroom. As a result, the Kenyan counterparts and Japanese experts made a lot of efforts to develop suitable and attractive training programs for local teachers by mobilizing local resources. These training programs focus on the way teachers should encourage students participation in the class through hands-on activities with locally developed instruments. The Project named this teaching methodology "ASEI (Activity, Student-oriented, Experiment, Improvisation). This ASEI approach has become highly popular among local teachers who participated in the training programs. They are expected to personalize or internalize the methodology in their own classroom, and then to diffuse the methodology to other teachers in the same district. The Japanese experts and their local

counterparts regularly visited the local teachers who were participants in the training programs, and helped them internalize the methodology. Eventually, this methodology has become widely spread in the pilot districts, and even untargeted arts and language teachers are now trying to apply this methodology to their subjects.

Example 2: External view for identifying local needs at the Pharmacopoeia project in the Philippine

Although the project is now being implemented under a high level of ownership on the Philippine side, it was a Japanese pharmaceutical administration expert that first found the need for developing pharmacopoeia to upgrade the quality of pharmaceutical administration in the Philippines. A considerable time elapsed, however, until the Philippines concerned recognized this project as “Local Needs”. Despite that difficulty, the Japanese expert continued to explain the necessity for the project from the following perspectives:

- 1) Recognition of the importance of developing the country’s “Pharmacopoeia” for establishing a stable pharmaceutical administration (recognition of international standard for the basis of pharmaceutical administration as well as production and import of medical supplies) that can ensure quantity (e.g., domestic production) and quality (e.g., quality control) of medical supplies in line with the country’s National Drug Program which was published in 1987.
- 2) Objective recognition that Philippine pharmaceutical administration and domestic industry of medical supplies have capacities enough to develop its own pharmacopoeia.
- 3) Recognition that the Philippines is behind neighboring countries that have already developed their pharmacopoeia. (Recognition of the relative situation of the Philippines in international environment). Especially, recognition that the country needed to establish its own national standard for pharmacopoeia in order to deal with the formation of free trade promoted by AFTA.
- 4) From experience in the development of Japan’s own pharmacopoeia, the expert knew

that assistance from foreign countries is effective in this field because Japan itself started the development of its pharmacopoeia under technical cooperation with the Netherlands and Germany.

This example shows that it is not a simple process to recognize “Local Needs,” and that experience and knowledge of foreign experts can help local people realize their own “Local Needs.”

Interaction between local and foreign knowledge

Moreover, interaction between foreign and local knowledge can lead to effective internalization of foreign knowledge. Externally developed foreign knowledge cannot simply be applied to a local economy and society. Some kind of internalization of foreign knowledge is necessary. The interaction of two types of knowledge can result in formation of new knowledge that is most suited to the local society. It is more efficient and effective when the local society internalizes the newly formulated knowledge by interaction than by simply learning original foreign knowledge. Foreign experts can play the role of facilitators in this internalization process. The Indonesia’s Maternal and Child Health Handbook Project provides a good example how the Japanese handbook was mixed with local practices and became effectively internalized by local counterparts (see Example 3).

Example 3: External knowledge and role of specialist in the Maternal and Child Health (MCH) Handbook Project in Indonesia

In 1992, an Indonesian doctor visited Japan for counterpart training and found a MCH handbook that is used for medical checkups of babies and infants at public health centers in Japan. Then, the doctor decided to use it in Indonesia. After returning to Indonesia, the doctor spent a whole year developing an Indonesian version of the MCH handbook together with a Japanese expert. The resulting MCH handbook was not a mere translated version of the Japanese one. Although the concept was the same, the contents were revised to meet Indonesian conditions.

In 1994, the MCH handbook was distributed to all pregnant women and all children before entering primary school in trial areas and has come to be used in practical maternity health service fields. This MCH handbook was widely accepted by mothers and has spread to various parts of Indonesia as it was also helped by self-directive promotion by the counterpart.

The Indonesian MCH handbook was developed by the great influence of experience and knowledge in Japan and has come to be widely accepted by the final beneficiaries or mothers. How did the Japanese experts contribute in this development process?

Debate over Development of Maternity Record Book in Indonesia

When the Indonesian doctor consulted the Japanese involved for development of an Indonesian version of the MCH handbook, most of the Japanese considered it too early to adopt the handbook in Indonesia. Also, all Japanese agreed that the contents of the Japanese MCH handbook, if used as they were, would not be appropriate to Indonesian situations. However, the counterpart was so eager to develop it that the Japanese were moved to start a joint work. Therefore, from the very initial stage, the persons concerned agreed not to simply transfer the Japanese MCH handbook to Indonesia but to develop an original one.

Preconditions (The counterpart wished to develop an original maternity record book.)

They visited various fields in Japan to fully understand differences between Japan and Indonesia. They realized to what extent the Japanese maternity record book would be applicable to Indonesia. < The counterpart was competent. >

They were willing to become deeply involved in the development and to spend many hours on it. < They were enthusiastic. >

Actions of Japanese Specialists

They tried to make the counterpart self-directive.

They fully researched lives of the mothers who would be the practical users of the maternity record book, and needs in local societies. They visited project sites frequently and were eager to learn local languages.

They did not rigidly adhere to Japanese experience, but were involved in the development flexibly, and devoted themselves to creating a maternity record book suitable to local situations.

They could give appropriate advice on study methods, etc. necessary for the development process of the maternity record book as a teaching material.

When requested, Japanese specialists presented experience and knowledge in Japan for reference.

Example 4: Development of knowledge suitable for local situations in Nursing Education Strengthening Project in Republic of El Salvador

In the Republic of El Salvador, the nursing education strengthening project was implemented for 5 years from 1997 in order to develop high quality nursing personnel under an appropriate human resource development and assignment plan. Japanese experts mainly developed the following activities together with 62 nursing teachers of 6 nurse training schools with the cooperation of clinical nurses:

- Standardization of curriculums for associate nurses, nurses and bachelor nurses (approved by the Ministry of Education),

- Preparation of 7 text books, 1 manual, 7 guide books and 17 seminar extracts,

- Preparation of teaching materials (9 video tapes and TP sheet),

- Preparation of teaching plans (lecture, internal training and on-the-spot training), and

- Preparation of on-the-spot education cooperation models.

The aim of the Japanese experts for these activities was to develop knowledge suitable for local fields together with the counterpart by fully utilizing knowledge available in respective fields. For example, 8 committees and 4 learning meetings were established in order to deal with themes required for continuous learning. They are managed by El Salvadorians themselves and held once a week. Each committee prepared curriculums and produced other concrete outputs (These committee meetings and learning meetings are continuing even after the end of the project and have contributed to further internalization of the developed knowledge). Textbooks and guidebooks have been successfully prepared from the activities of these committee meetings. One person from the counterpart and one Japanese expert as a pair attended these committee meetings each time as the leaders. When local knowledge differed from that of the Japanese experts, committee members studied and analyzed medical and education fields as well as related books, discussed frequently until they reached consensus,

and tried to make textbooks and guidebooks that could be used in local fields. As a result, they prepared textbooks and guidebooks suitable for respective local fields. When both parties could not agree with each other about what they were examining, decisions were made based on the nursing vision in El Salvador. The drafts of textbooks were examined in committee meetings, supervised by specialists of the country and examined in the national council. Opinions raised in the council were brought back to committee meetings for re-examination, and textbooks were revised and bound. After the copyright was registered, the bound textbooks were distributed to the project-related organizations and then to Latin American countries.

These activities of weekly committee meeting for 5 years contributed to develop and internalize knowledge suitable to the nation. In addition, the knowledge developed by the Project was widely spread to 20 nursing teachers in 7 Latin American and Caribbean countries under the third-country group training program started in 2002 after the end of the Project. The training theme was preparation of textbooks and teaching materials, and 5 textbooks were prepared and completed in each country during the two-month training program.

2-2 Identification and Utilization of Local Knowledge

Use of local knowledge

Expatriate experts can contribute to accurately evaluating and mobilizing local knowledge. Although simple and codified knowledge can be easily understood and obtained, much useful indigenous knowledge remains tacit. Any society has local knowledge that is useful for development. However, blinded by proximity, such knowledge is often times deemed old or unconventional, or simply disregarded and misplaced by local people. It is often useful to bring in an outsider to look for valuable pieces in local knowledge, and to act as a facilitator or guide to help bring out such knowledge. In the case of the rural development project in Indonesia, for instance, the Japanese experts organized “master-hand cultivator contests” for the local farmers to identify locally inherited “unscientific” and tacit knowledge (see Example 5).

Example 5: Identification of “unscientific” knowledge in Project on Strengthening Sulawesi Rural Community Development to Support Poverty Alleviation Programmes in Indonesian

In line with the Sixth Five-Year National Development Plan, the Government of Indonesia requested the Government of Japan to cooperate with an implementation of rural development project. in the Sulawesi island from 1997 to 2002. The main objective of this project was to popularize the model for participatory rural community development in Sulawesi. The villagers were encouraged to actively participate in creating their own development projects. Utilization of local tacit knowledge was one of the focuses of the project. In the rural community, local villagers did not positively recognize the value of their own tacit knowledge, which had been developed in the rural community for decades, because such knowledge was always regarded as “unscientific” and was neglected by the authorities. In order to identify such tacit knowledge, the Japanese experts organized “master-hand contests” in the village. A master-handed cultivator of local cucumber or long beans, for instance, was selected, and her or his experience was shared by other villagers. By means of these master-hand contests, local villagers were able to identify and utilize locally accumulated knowledge, and become more confident in their traditional way of life. These master hands participated in study visits to other parts of the country so that they could also share their experience with villagers in other islands.

2-3 Acquisition and Internalization of Foreign Knowledge

Importance of learning by doing

The process of acquiring and internalizing new knowledge depends on the context. This is especially true for tacit knowledge. Trial and error is often an effective approach to acquiring this kind of knowledge since important knowledge for a country cannot always be taught in classrooms. This is why the project design of donors’ TC should be flexible enough so that the project can accept some trial and error. The time frame of the project needs to be sufficiently long, as well.

In order to acquire or internalize such knowledge, moreover, one should have an opportunity to actually utilize it in practice. The process of “learning by doing” is hence of primary importance. “On the job training (OJT)” is considered to be one useful form of the “learning by doing”. One of the features of JICA’s TC project is that they explicitly provide the local counterparts with the opportunity of ‘learning by doing’. In the family planning project in the Philippines, for instance, experts employed the following training approach:

- (1) The expert gives a demonstration of the work in front of the counterparts.
- (2) The expert and a counterpart do the work together.
- (3) Then at the phase-out stage, the counterpart carries out the work alone in front of the expert.

This kind of learning by doing approach has been adopted in many other projects by many Japanese experts. In the Reproductive Health Project in Vietnam, it is reported that this approach was effective in assisting the counterparts to obtain new knowledge and skills, in particular those not described in the textbooks.

Example 6: Learning by doing in Nursing Education Strengthening Project in Republic of El Salvador

The Japanese experts prepared teaching plans (lectures, internal training and on-the-spot training) together with 62 nursing teachers of 6 nurse training schools in the country.

They evaluated teaching methods of full-time nursing teachers based on the teaching evaluation format prepared together in the preliminary survey according to the direct observation method with the counterpart. This evaluation enabled them to understand true local needs and to clarify detailed activities. In the teaching plan preparation seminar executed based on the evaluation, they gave a lecture with a theme in a group and made trainees prepare individual teaching plans; consequently, some trainees gave practice lectures based on their prepared teaching plans before other trainees. Other trainees evaluated the practice lectures according to the evaluation format used in the preliminary survey and submitted the evaluations to the presenters. Then, trainees held transmission lecture meetings at respective schools so that they could delivery what they learnt at the seminar to colleague teachers. A

Japanese expert and local counterpart attended lecture meetings to add supplementary explanations, if necessary, to presenters' explanations. In the project activity monitoring and at the end of training, the experts evaluated 36 trainees out of 45 trainees who attended (80%), and 33 trainees were evaluated at more than 3.5 on the 5-level evaluation. The passing rate was 92%. The teaching methods of all observed teachers were greatly improved as compared with the preliminary survey. As an important effect of these on-the-spot training, it can be pointed out that teachers, who were very reluctant to have their teaching evaluated by other persons because it had not been done previously, have come to accept others' evaluations and improve their teaching.

Importance of long-term commitment

Long-term commitment to the project can also contribute to full acquisition of knowledge. In order to facilitate the process through technical cooperation, both the donor and the recipient sides need strong commitment with a long-term timeframe. A short-term result-oriented management may not always be appropriate. Donors should be responsible for the TC project until the outcomes of the project have manifested and the local counterparts become familiar with these outcomes. Institutional and long-term back-up supports from the donor side often results in effective internalization of foreign developmental experience and knowledge. An example of such long-term institutional support can be found in one of the JICA's higher education projects in Thailand. A small vocational college in the country has become one of the most popular national universities in the fields of communication and information technologies, called the King Mongkut's Institute of Technology Ladkrabang.

Importance of mutual respect

Furthermore, the use of trained expatriate experts in technical cooperation projects with high levels of expertise can contribute to the promotion of mutual trust between experts and their counterparts. Mutual trust is likely to contribute to knowledge acquisition and internalization by facilitating mutual exchange of ideas, communication and learning in TC projects. The project must reach a stage where the two sides can respect each other. Therefore, foreign experts are required to have sufficiently high expertise so that they can be fully respected by their local counterparts. It is, however, pointed out that high level of expertise can only partly promote

mutual respect and hence, knowledge acquisition. Other factors include experts' personality and the length of time that both sides have been associated. Previous experience in similar projects in the country or region concerned, as well as some fluency in the local language, are highly appreciated by the local counterparts.

2-4 Mobilization of Donors' Own Knowledge

Use of Japanese experience

Japan has its own unique experience of transforming its society from a state of devastation after World War 2 to becoming one of the most advanced industrialized countries. The knowledge acquired in this process could be useful as a catalyst to some developing countries in dealing with their various development objectives. The Maternal and Child Health Handbook is just one example that is effectively utilized in many developing countries in order to improve their health situations.

One could also draw useful lessons from Japan's ample experience of importing, absorbing and internalizing Western knowledge as part of the modernization process. In the field of governance, for example, there are increasing demands for Japanese support for legal reform in countries such as Vietnam, Cambodia, and Laos. This is because they want to learn from the Japanese experience where modernization was achieved by effectively introducing and internalizing both European and American legal systems. Many of JICA's TC projects intend to share various types of Japanese experience with local counterparts (see Example 7).

Example 7: Utilization of Japanese experience in health service projects in Indonesia and Vietnam

Japanese experience has been the basis of many Japanese TC projects. Explicit examples are found in the maternal health service projects in Indonesia and Vietnam. The main focus of the Indonesian project was to introduce 'Maternal Child Health Handbook (MCH)²'. The

² Technical Cooperation Project for Ensuring the Quality of MCH Services through MCH Handbook

methodology of the MCH handbook was originally developed in Germany, and introduced to Japan in the 1940s. Since then, it has been widely used in Japan, and become the main instrument to educate pregnant women and monitor their health condition. The Indonesian project has been very successful at introducing this methodology to various parts of the country by mobilizing Japanese experts who have rich experience in utilizing the handbook, and also by providing their local counterparts with the opportunity to visit Japanese health posts to see how the handbook is actually utilized in Japan. The project has been very careful not to impose the Japanese methodology on Indonesia, and spent much effort to adjust the handbook based on the local social environment.

JICA's reproductive health project in Vietnam³ is also very active in utilizing Japan's experience for the local community. In the model province of Nghe An, the project has tried to introduce the Japanese methodology of community based family planning. This methodology, called 'AIKUHAN activity', was developed in the 1950s in Japan. Local self-help groups were organized on voluntary bases, and the members were required to provide minimal health service to pregnant women in the community. This methodology was particularly useful in rural communities, which were not able to receive public health service frequently. The local community of Nghe An province has keen interest in this methodology, and actively acquired its know-how. The project is now expected to disseminate this methodology to the rest of the country.

Use of public/non-commercial organizations and institutional back-up support

The objective of many JICA's technical cooperation projects is to improve functions of public institutions in developing countries. In Japan, much experience and knowledge to improve public functions are often possessed by public or non-commercial organizations, such as the central or local governments, academic institutions and NGOs, and remain tacit. In these cases, a commercial contract with private consulting firms might not be an appropriate way to mobilize such Japanese knowledge. An institutional twinning support, for instance, can effectively mobilize experience and knowledge that have accumulated in these public or non-

³ The Reproductive Health Project in Nghe An Province

commercial organizations. Such institutional back-up support would offset limitations of consultants or experts as individuals, and enable the recipient to obtain needed knowledge from the donor through repeated and wide range interactions between the two institutions. The International Medical Center of Japan (IMCJ), for instance, has provided accommodating back-up supports to the Japanese experts, who were nominated by the IMCJ to work for JICA medical projects.

Example 8: Systematic institutional support in the second phase of the China-Japan Environmental Preservation Center in China

The project started the same time when the 9th 5-year Plan of China started. During this period, China started to take full-scale environmental measures, and many serious problems to solve the environmental in the project occurred especially in the latter half. These problems were not simple, and solving them depended on applied ability. In other words, the problems could not be solved only by simple transfer of formal knowledge and experience in Japan. It was necessary for the project to exchange Japanese and Chinese knowledge frequently and continuously in order to establish a system suitable to the Chinese situation. To this end, institutional support by the central government, research institutes and local governments were essential and effective.

At first, knowledge was interchanged in both directions and studied. As for input from Japan, the related organizations dispatched more than 50 short-term experts in total for 5 years to the Environment Preservation Center, and these experts participated in seminars, technical guidance and on-the-spot guidance. For input from China to Japan, Chinese acquired Japanese knowledge through training in Japan on an invitation from JICA, and information and results of studies and research of both sides were closely exchanged. These two-way exchanges of knowledge allowed the Environment Preservation Center to promptly solve new problems they faced. In this process, the relationship between the Center and related institutions in Japan was strengthened.

In addition, there was another important positive result: Japanese experts, who made short-time visits frequently to the Environment Preservation Center, became “Expert in

Chinese Environment.” These well-versed specialists selected certain knowledge out of the broad ranges of knowledge possessed by organizations, and modified it in such a way that it could be introduced in a way suitable for the Chinese context

Use of South-South cooperation

South-South cooperation can also serve as a useful mechanism to stimulate appropriate knowledge for developing countries. South-South cooperation is an approach that enables knowledge already acquired by a developing country to be further extended to other countries with financial support from donors. In this process, the executing agency is expected to further internalize knowledge they acquired by sharing it to other developing countries. Recipient countries, on the other hand, can have opportunities to generate appropriate new knowledge by learning knowledge acquired by a country that has similar social and cultural environments to them. An example of such South-South cooperation can be found in a series of JICA’s science and math education projects in the Philippines, Kenya and Ghana (see Example 8).

Example 9: South-south cooperation among JICA’s science and math education projects

JICA implemented a project to support the science and math education at the secondary level in the Philippines from 1994 to 1999⁴. The lessons of this project are fully reflected in a similar project in Kenya, called SMASSE⁵. The Kenyan counterparts were sent to the Philippines to obtain first-hand information from the previous local staff of the Philippines project. The SMASSE project has been very successful and has had demonstrable positive effects in a short period of time. After the successful implementation, the SMASSE project, in turn, started inviting the Ghanaian project coordinator who has been involved in a similar education project in Ghana⁶. The Ghanaian officer has benefited greatly from contacts with the staff of the Kenyan project. This has enriched his experience and knowledge about common problems encountered in the implementation of the TC project and how the other country strategized to improve teachers’ capacity in delivering effective science and

⁴ The Science and Mathematics Education Manpower Development Project in the Philippines: SMEMDP

⁵ The Strengthening of Mathematics and Science in Secondary Education (SMASSE) Project in Kenya

⁶ Improvement of Educational Achievement in Science, Technology and Mathematics (STM) in Basic Education in Ghana

mathematics lessons. This Kenyan knowledge has been shared at the regular project committee meetings in Ghana, thus entered the discourse on how to manage TC projects for maximum benefit to the country.

3. Conclusions

The role of knowledge has been frequently emphasized as an important agenda for development. It has generally been assumed that developing countries lack important skills and abilities, and that outsiders could fill these gaps with quick injections of know-how. However, this gap-filling approach has been rejected by the recent publication of the UNDP report. The report points out that knowledge cannot be simply transferred from developed to developing countries, but it should be willingly acquired by the recipients. Furthermore, due to the recent development of information and communication technology (ICT), partner countries have wide access to external knowledge useful for development. Partner countries can also purchase a variety of knowledge from the market, using financial resources in the pooled TC funds, which are supplied by donors. The new motto is: “Scan globally, reinvent locally”.

Japanese technical cooperation has many issues in common with the new model proposed by UNDP. The difference between the two can be found in their views on the way knowledge is effectively acquired. From Japan’s experience of importing, absorbing and internalizing Western knowledge as part of its modernizing process, many Japanese involved in technical cooperation shared the idea that knowledge acquisition is a difficult and time-consuming process in which knowledge cannot be simply transferred by the donors. Tacit knowledge in particular cannot be possibly acquired from the internet since the acquisition of tacit knowledge requires direct contact. Therefore, the acquisition of such kinds of knowledge can be facilitated by external support that emphasizes the process of acquiring new knowledge. JICA’s technical cooperation focuses on this process. The elements of Japanese process-oriented approaches on how to acquire knowledge include:

- Identification of local needs by both expatriate experts and their counterparts
- Interaction of foreign and local knowledge
- Use of expatriate experts to identify and mobilize local knowledge
- Learning by doing approach

- Long term commitment with institutional back up support by donor sides
- Promoting mutual respect between experts and their counterparts
- Non-commercial TC to mobilize knowledge in public sectors

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