

Central America and the Caribbean

Ex-Post Evaluation of Technical Cooperation Project

“The Project for Strengthening Nursing Education and In-service Training in El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic”

External Evaluator: Akiko Hirano, Global Group 21 Japan, Inc.

0. Summary

The project was implemented in the area of basic nursing education and continuous training in Central America and the Dominican Republic. It aimed to improve continuous nursing education in midwifery for El Salvador as bilateral cooperation, and to improve the capacity of nursing teachers and clinical instructors in Guatemala, Honduras, Nicaragua and the Dominican Republic as regional cooperation. The purpose of this project was consistent with the health policies and development needs of those countries as well as Japan’s ODA policy, thus its relevance is high. In terms of the regional cooperation, while the standardization of nursing education and the establishment of training, and monitoring and evaluation system had been in progress, the sustainability of the training system had been observed half-way and the achievement level of the project purpose by the indicator measurement could have not been confirmed. Therefore, the project had achieved its purpose at a moderate level at the time of the project completion. Subsequently, the project achievement level was found to be high at the time of ex-post evaluation with the progress of standardization of nursing education and establishment of fairly good self-sustainable training system in a few countries/local areas, and the positive impact on the improvement of the regional nursing network and nursing services was also observed. For the bilateral cooperation, the project largely achieved its purpose at the time of the project completion, and the positive impact on the strengthening of the continuous education training system in Santa Ana Department, the increase of institutional delivery and the improvement of nursing services in the western region including Sonsonate and Ahuachapan Departments was observed. Thus, the effectiveness and impact of the project are high. Although the project cost was within the planned, the project period was extended by one year. Therefore, the efficiency of the project is fair. In terms of the sustainability, while the situation varied among the countries, the models and manuals developed through the project were officially approved and the activities were integrated into the national plans in some countries. Therefore, the sustainability of the project is high.

In light of the above, this project is evaluated to be highly satisfactory.

1. Project Description



Project Locations



Health promotion session to mothers by a nurse

1.1 Background

It has become one of the most important issues in Central America and the Caribbean to ensure the quality improvement of basic education of nurses responsible for the health care services, and to carry out continuing in-service education. As no standard curriculum had been established for basic nursing education, some of the educational institutions in these countries had no mechanism to ensure the quality of nursing education. In addition, gaps between basic education and on-site training reported.

Under these circumstances, the Japan International Cooperation Agency (JICA) implemented the technical cooperation project entitled “Project for Strengthening Nursing Education” for El Salvador from 1997–2002, and the third-country training program on Nursing Education in El Salvador from 2002–2006, which was provided to the neighboring countries. Subsequently, Japan received the request for cooperation in the area of nursing education from five countries in the region, namely El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic. To respond to this request efficiently and effectively, JICA decided to implement a “Project for Strengthening Nursing Education and In-service Training in El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic” (hereafter referred to as “project”) as regional cooperation in the area of nursing education. It was headquartered in El Salvador since August 2007 for a term of three years.

1.2 Project Outline

This project was implemented with two components to improve the quality of nursing education: (i) regional cooperation in the area of basic nursing education targeting the five countries; and (ii) bilateral cooperation in the area of continuous nursing education targeting El Salvador. For the regional cooperation, the El Salvadorian experts who had been trained by the previous JICA cooperation conducted capacity

development of other countries' personnel together with the Japanese experts (it is called "triangular cooperation¹"). For the bilateral cooperation, while the improvement of basic nursing education had been achieved in El Salvador through the above-mentioned JICA cooperation, the system to maintain and improve the skills and knowledge of nurses by the continuous education had yet to be established. In addition, the maternal mortality level was still high. Therefore, the project was conducted to improve the quality of human resource in nursing services in the area of reproductive health, particularly with a focus on midwifery.

Overall Goal		<ul style="list-style-type: none"> • Regional Cooperation: Quality of nursing education in Central American and the Caribbean region is improved. • Bilateral Cooperation: Nursing service in the area of midwifery is improved in Santa Ana, Sonsonate, and Ahuachapan Departments².
Project Purpose		<ul style="list-style-type: none"> • Regional Cooperation: Capacity of nursing teachers and clinical instructors in El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic is strengthened. • Bilateral Cooperation: Quality of in-service training for nurses in the area of midwifery is improved in Santa Ana Department.
Output(s)	Regional Cooperation	<ol style="list-style-type: none"> 1. Education for nursing teachers and clinical instructors is improved. 2. Activities for standardizing nursing education are planned and implemented. 3. Cooperation between basic education and on-site training is strengthened. 4. Activities for sustainable development of nursing education are promoted.
	Bilateral Cooperation	<ol style="list-style-type: none"> 1. The process of in-service training for nurses in the area of midwifery is established and implemented in Santa Ana. 2. The method of monitoring and evaluation of in-service training for nurses in the area of midwifery is established and implemented in Santa Ana Department. 3. Management and administration system of in-service training for nurses in the area of midwifery is improved in Santa Ana Department. 4. Activities for sustainable development of nursing education are promoted.

¹ The triangular cooperation is generally defined as the cooperation between developing countries. Triangular cooperation conducted by JICA is mainly third country training and dispatch of third country experts. (source: ODA evaluation on Triangular Cooperation in 2012)

² Western region is comprised of Santa Ana, Sonsonate and Ahuachapan departments.

Total cost (Japanese Side)	267 million yen
Period of Cooperation	August, 2007–August, 2010, Regional cooperation was extended from September 2010 to August 2011
Implementing Agency	Ministries of Health in El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic
Other Relevant Agencies / Organizations	Nursing associations and nursing schools in El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic
Supporting Agency/Organization in Japan	None
Related Projects	<ul style="list-style-type: none"> • Technical cooperation “Project for Strengthening Nursing Education in El Salvador 1997–2002” • Third-country training program “Nursing Education 2002–2006”

1.3 Outline of the Terminal Evaluation

1.3.1 Achievement Status of the Project Purpose at the time of the Terminal Evaluation

<Regional Cooperation>

The cascade training system was established through committees in each country and the capacity of nursing teachers and clinical instructors in the areas of nursing process³ and collaboration between basic education and on-site training had been improved. It was concluded that when the training management cycle was completed and the evaluation of basic nursing education by students was conducted, the project purpose would be achieved.

<Bilateral Cooperation>

The trained nurses utilized the knowledge and skills obtained through the training in checking up at the clinic site and their quality of nursing services was highly evaluated. The training program and monitoring criteria were approved by the Ministry of Health as a model and the system to operate training based on the training management cycle was established. Thus, it was concluded that the project purpose was achieved.

³ Nursing process is a series of organized thought and steps designed for nurses to plan and provide holistic and patient-focused care, considering to identify the intervention for the best possible care for the each patient requiring nursing care.

1.3.2 Achievement Status of Overall Goal at the time of the Terminal Evaluation

<Regional Cooperation>

The network among the five countries was established and the achievement of each country was shared among them for the improvement of nursing education. The project influenced beyond the five countries through opportunities such as meetings of Health Ministers at the Council of Ministers of Health of Central America (hereafter referred to as COMISCA)⁴ and nursing conferences. It was concluded that the quality of nursing education in Central America and the Caribbean was expected to improve by presenting the outputs of this project at academic conferences and so on.

<Bilateral Cooperation>

The improvement of the nursing services in the area of midwifery was observed in Santa Ana Department. It was also reported by the pregnant women that the care received from nurses was upgraded. Thus, it was concluded that if the facilitators in Sonsonate and Ahuachapan Departments trained by the project can securely conduct the training, it is possible that the nursing service in midwifery will be improved in the western region of El Salvador.

1.3.3 Recommendations at the time of the Terminal Evaluation

<Regional Cooperation>

The recommendations included the formulation of activity plans on training and monitoring and evaluation in each country, the implementation of training through regional committees, the support for the preparation of training manuals and guidelines and the standardization of models, the integration of each element in health policies, the continuation of activities towards the standardization of curricula, the mobilization of internal and external resources for self-sustaining activities in each country, the support for information exchange among each country through continuous video conferences, the diffusion of effects on nursing teachers and instructors in the neighboring countries and the consideration of utilizing regional entities and south-south cooperation, and the expansion of the nursing network to non-nursing areas in the region.

<Bilateral Cooperation>

The recommendations included the formation and implementation of plans by the Nursing Department of the Ministry of Health for continuous education training and monitoring and evaluation in the area of midwifery in the western region with prospects

⁴ COMISCA (Council of Ministers of Health of Central America) is the political arm of the System for Central American Integration (SICA), comprised of the health ministers from 8 member countries.

of nationwide implementation, the resource mobilization for continuous implementation of training and monitoring and evaluation in the western region, the preparation of the operational and management manual for continuous education by the Continuous Nursing Education Steering Committee in the western region, and the capacity development of instructors in reproductive health through regional cooperation and the reinforcement of their role to promote information sharing.

2. Outline of the Evaluation Study

2.1 External Evaluator

Akiko Hirano, Global Group 21 Japan, Inc.⁵

2.2 Duration of Evaluation Study

Duration of the Study: September, 2014 – July, 2015

Duration of the Field Study: October 12, 2014 – November 11, 2014 and February 22 2015 – March 6, 2015

3. Results of the Evaluation (Overall Rating: A⁶)

3.1 Relevance (Rating:③⁷)

3.1.1 Relevance to the Development Plan of El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic

The El Salvador National Development Plan “*Pais Seguro* 2004-2009” at the time of the project planning emphasized to improve health services, and the “National Health Program 2004-2009” aimed to ensure that all women receive reproductive health care from pregnancy, delivery, to postnatal care by high quality health personnel. The national development plans and health policies of Guatemala, Honduras, Nicaragua and the Dominican Republic⁸ aimed to improve health care and provide quality care to the people through the development and strengthening of human resources for health as a priority area.

At the time of the project completion, the newly-developed National Health Policy Strategy of El Salvador included a strategic focus on maternal and child health and prioritized the detection of abnormalities and care in the area of reproductive health

⁵ Evaluator participated in the study from Global Link Management Inc.

⁶ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁷ ③: High, ② Fair, ① Low

⁸ Relevant national policies are followings: Guatemala “National Development Plan 2004-2008”, “National Health Program 2004-2008”, Honduras: “Poverty Alleviation Strategy Paper 2001-2015”, “National Health Plan towards 2021 (2006-2021)”, Nicaragua: “National Development Plan 2005-2009”, “National Health Plan 2004-2015”, Dominican Republic: “Poverty Alleviation Strategy Paper 2003-2015”, “Health Policy 2001”.

during the pre-pregnancy, prenatal and perinatal stages. Among the other four countries, the same national policies were being implemented in Honduras, Nicaragua and the Dominican Republic as at the time of the project planning. The New Health Policy of Guatemala also prioritized the development of human resources for the provision of quality health care.

The COMISCA expressed its willingness to extend full support for the project at the time of the project planning. The COMISCA's health policy "Health Agenda (2009-2018)" and its operational instrument "Health Plan (2010-2015)", whose development began around the time of the project planning, prioritized the development of human resources for health as one of the objectives.

Thus, the development of human resources for health was one of the major priorities both at the time of the project planning and completion and the project was consistent with the development plans of these countries.

3.1.2 Relevance to the Development Needs of El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic

At the time of the project planning, as mentioned in the background, the improvement of basic nursing education and continuous education was one of the most important issues and the lack of standard curriculum and mechanism for quality nursing education was reported in the region. In El Salvador, the quality improvement of nurses as front line health workers was regarded as an urgent issue. While it aimed to reduce the maternal mortality rate by one-third from 1990 to 2015, the maternal mortality rate increased from 1993 to 2003 instead, according to the survey by the Ministry of Health.

At the time of the project completion, while the continuous nursing education was institutionalized and its quality improved, the need to improve reproductive health care remained high in El Salvador. In the other four countries, the needs for development of nurses and reinforcement of nursing specialization were high in order to achieve major policies such as the provision of quality health care to the people, strengthening of community health, and emergency response concerning the disease outbreak. Therefore, the project was relevant to the development needs of the countries at the time of both the project planning and completion.

3.1.3 Relevance to Japan's ODA Policy

The Tokyo Declaration "Japan and Central America: Friends United Towards the Future" developed on the occasion of the Japan-Central America Year 2005 included poverty reduction, sustainable development and strengthening regional integration as cooperation areas. The Assistance Strategy for Latin and Central America in 2005

prioritized the support for the health sector leading to poverty reduction and, considering the regional commonality in history, culture and language, the promotion of regional cooperation aiming at human resource development and technical transfer to tackle the regional challenges. In addition, the Country Assistance Strategy for each country also prioritized the quality improvement of health care and strengthening of public health.

As mentioned above, this project was highly relevant to the five countries' development plans and development needs, as well as Japan's ODA policy. Therefore, its relevance is high.

3.2 Effectiveness and Impact⁹ (Rating: ③)

3.2.1 Effectiveness

3.2.1.1 Achievement of Project Purpose

<Regional Cooperation>

Project Purpose: Capacity of nursing teachers and clinical instructors in El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic is strengthened.

As El Salvador was in a position to support other countries in the regional cooperation, other four countries, excluding El Salvador, were evaluated for the achievement of the project purpose.

Since the indicators set for the project purpose were not measured at all as shown below, the achievement level was unknown. Therefore, the level of capacity strengthening of nursing teachers and clinical instructors was assessed based on the following qualitative points, taking into consideration the achievements of planned activities and outputs.

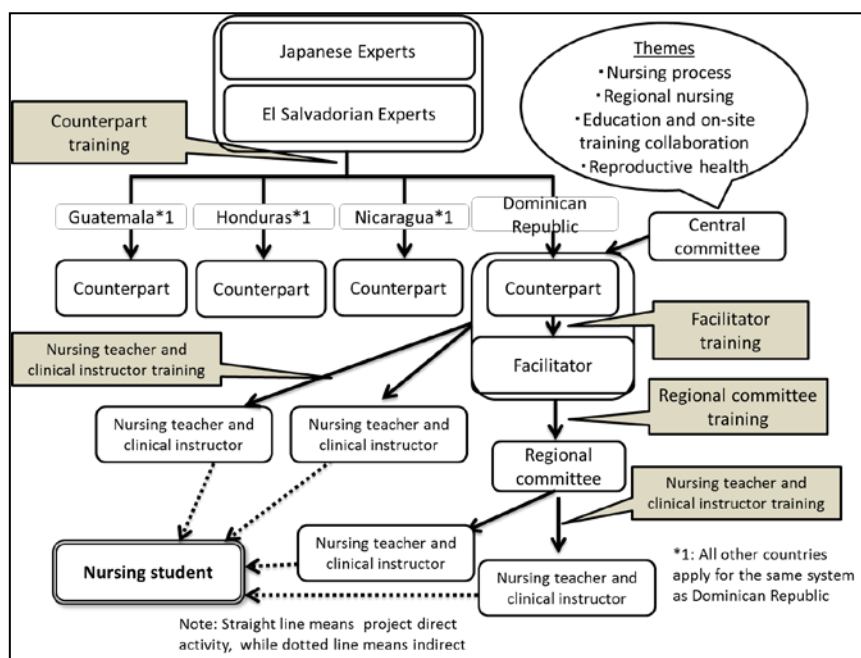
Achievement of Project Purpose

Project Purpose	Indicator	Actual
Capacity of nursing teachers and clinical instructors in El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic is strengthened.	1. In nursing schools and health facilities where 80% of all teacher and clinical instructors participate in training courses, the performance of teachers and clinical instructors is rated more than 3.5 on average on a scale of 1-5 by students	The indicator was not measured. The evaluation criteria were not developed as the activities had not progressed to the level to conduct the evaluation by the students.
	2. Students are rated more than 3.5 on average on a scale of 1-5 by clinical instructors	The indicator was not measured due to the same reason as above.

⁹ Sub-rating for Effectiveness is to be put with consideration of Impact.

1) Establishment of the cascade training system through committee

The project introduced the cascade¹⁰ training system through committees as an approach to develop capacity of nursing teachers and clinical instructors.



Source: The Evaluator formulated based on the “Project terminal evaluation report 2010”

Figure 1 Cascade training system through committee in regional cooperation

Through the activities under Output 1 (to improve education for nursing teachers and clinical instructors), the training program and materials were developed on the themes of “Nursing Process”, “Regional Nursing¹¹”, “Cooperation between basic education and on-site training”, “Reproductive Health”, and “Curriculum”. Based on the program, trainings for the counterparts¹² from each country were conducted in El Salvador. Counterparts then trained the facilitators in their respective country and set up the central committee on each theme. Subsequently, the regional committees were established and the trainings of nursing teachers and clinical instructors were conducted by the regional committee members. As such, the cascade training system was established as illustrated in figure 1, improving the capacity of nursing teachers and clinical instructors. According to the project terminal evaluation report, the interviews with nurses, health facilities workers and pregnant women revealed that the trained nurses became aware of not only the

¹⁰ Cascade is the method in which the person receives the training then trains others in the same manner.

¹¹ Regional nursing is focused on the prevention, promotion and maintenance of the health status of all individuals, families and communities.

¹² Counterparts and facilitators were comprised of teachers from nursing schools and nursing instructors for the students from the health facilities.

assistance to doctors but also the significance of nursing care, and acquired and practiced the skills to provide the quality care to the patients.

The activities under Output 4 (to promote sustainable development of nursing education) were implemented to ensure the sustainability of this training system through accelerating and regularizing the function of central and regional committees in each thematic area. While the committees had started their operation and monitoring and evaluation of the training was initiated in three out of four countries, the number of committees conducting the monitoring was limited. Moreover, it could not be confirmed whether the monitoring results were utilized to solve the problems as set in the output indicator. Thus, it was observed that the establishment of the sustainable training system was half way at the time of the project completion.

2) Cooperation between basic education and on-site training

Output 3 aimed to strengthen the cooperation between basic education and on-site training, which was one of the main challenges in the region, by developing the model. However, while the final draft models were developed in all countries, only Nicaragua and the Dominican Republic officially approved the models through the Ministry of Health and the other countries have yet to approve them by the time of the project completion. In those countries where the model was approved, the implementation of the model was initiated and the improvement of on-site training for students and nursing care by clinical instructors was reported.

3) Standardization of nursing education

Guatemala and Nicaragua implemented the development of a standardized curriculum for the nursing diploma courses under Output 2. At the time of the project completion, the draft curriculum was developed and presented to the nursing council as a process of standardization in Guatemala. In Nicaragua, 90% of the course contents were complete by that time. Therefore, while it was at the final stage in both countries, the process was incomplete.

In this manner, education for the nursing teachers and clinical instructors was improved by the establishment of the cascade training system. On the other hand, the sustainability of the training system, the coordination between basic education and on-site training and the development of the standardized curricula were yet to complete at the time of the project completion. Therefore, the benefits of the project for the nursing teachers and clinical instructors on the ground and students seemed to be limited. This was the major reason why the project could not measure the student evaluation as the indicators for the project purpose. The period of the regional coordination component was

extended by one year due to the external factors such as political changes and disease outbreaks. While the progress was made during the extended period, the project purpose was not achieved fully. Therefore, the project achieved its project purpose at a moderate level.

<Bilateral Cooperation>

Project Purpose: Quality of in-service training for nurses in the area of midwifery is improved in Santa Ana Department

Achievement of Project Purpose

Project Purpose	Indicator	Actual
Quality of in-service training for nurses in the area of midwifery is improved in Santa Ana prefecture.	1. Facilitators are rated more than 3.5 on average on a scale of 1-5 by trainees	Achieved. All the facilitators were rated 4 or 5.
	2. The quality of care of trainers is rated more than 3.5 on average on a scale of 1-5 by other health personnel	Not measured. The evaluation was not conducted as the evaluation criteria were not developed.
	3. A training program and training implementation plan are approved as a model for nursing in-service training by the Ministry of Health	Achieved. The training program and implementation plan were approved as planned.
	4. Standard of monitoring and evaluation of training is approved as a model by the Ministry of Health	Achieved. The standard of monitoring and evaluation was approved as planned.

1) Establishment of the continuous education training and monitoring and evaluation processes

Through the activities under Output 1 (to improve the continuous education training process), the training program, materials and implementation plan were developed and facilitators were trained. Those facilitators conducted the trainings on midwifery for the nurses and assistant nurses at the primary facility level through the cascade training system. The number of trainings was achieved as planned, and the quality of the facilitators was high as measured in the indicator 1. Moreover, under Output 2 (to improve the training monitoring and evaluation system), the standard of monitoring and evaluation was developed and the monitoring was done in the majority of the health facilities where the trained nurses belonged. According to the health office in the western region, the results of the monitoring were utilized to revise and improve the training program. The training program and the monitoring and evaluation standard were approved by the Ministry of Health as measured in the indicator 3 and 4. Thus, it was considered that the continuous education training process and the monitoring and

evaluation system were established.

2) Strengthening of the health office in the western region on continuous education training implementation and management system

The health administration of Santa Ana was under jurisdiction of the health office in the western region. It was reported that through Output 3 (to improve the operational and management system of continuous education training), the regional and departmental committees on reproductive health were established and functioned, the management system of the health office in the western region was strengthened, and the implementation of the trainings and monitoring and evaluation was managed as planned. At the same time, the Continuous Nursing Education Steering Committee, which was planned to be established under Output 4 (to promote sustainability of activities), was once established but not operational due to the changes of the government. However, the terminal evaluation report observed that the continuous education training could be well managed by the health office in the western region together with the regional and departmental committees. With the facilitators in Sonsonate and Ahuachapan Departments trained by the project, it was considered that the basis for training expansion in the western region was set.

As mentioned above, the project largely achieved its purpose, which was to improve the quality of continuous education training for nurses in the area of midwifery in Santa Ana.

3.2.2 Impact

3.2.2.1 Achievement of Overall Goal

<Regional Cooperation>

Overall Goal: Quality of nursing education in Central American and the Caribbean region is improved.

As the target year of the indicators was not set in the regional cooperation component, the achievement level was assessed at the time of the ex-post evaluation. In this section, first, 1) the achievement level of the project purpose at the time of ex-post evaluation was assessed, and subsequently, 2) the establishment and expansion of regional nursing network and 3) the improvement of nursing care were discussed to review how the quality of nursing education in each country progressed. In addition, 4) the promoting factors to realize the project efforts were mentioned.

Achievement of Overall Goal

Overall Goal	Indicator	Actual
Quality of nursing education in Central American and the Caribbean region is improved.	1. The network among nursing leaders in Central America and the Caribbean is established and the information is exchanged periodically.	The regional network was established and expanded and the effective information sharing was conducted regularly among the counties, through regular video conferences and the annual regional nursing conferences in 2013 and 2014 led by El Salvador as the project headquarters.
	2. The results of the nursing educational research are presented at national and international conferences.	The achievement of the project was presented at the national nursing congress in each country and also shared at regional and international conferences, benefitting more than the five target countries. It was reported that the research needs and activities were promoted with the understanding of the importance of evidence-based nursing care.

1) Achievement level of the project purpose at the time of the ex-post evaluation

The activities of the regional cooperation component have been continuously implemented after the project completion. The project coordinator has been assigned within the Nursing Department of the Ministry of Health in each country and El Salvador has been showing strong leadership as project headquarters. The achievement level of the project purpose, which was partial at the time of the project completion, was considered high at the time of the ex-post evaluation.

The cascade trainings have been continuously conducted by the central and regional committees on each theme. The joint activities by other JICA projects were also exercised in Guatemala and the Dominican Republic¹³.

While the situation appeared to vary among the countries and committees in the area of monitoring and evaluation after the training, there were cases among some active committees where the monitoring and follow up of the training has been institutionalized in their organizations, thus the sustainability of the activities was ensured. Also the models or standards on the cooperation between basic education and on-site training, the nursing process and the community nursing have been approved by the Ministry of Health

¹³ Joint trainings on nursing education was done in collaboration with the project coordinators/Nursing Departments and JICA projects in Guatemala: “Project for Maternal and Child Health in Quetzaltenango, Totonicapan, and Solola in the Republic of Guatemala 2011-2015” and Dominican Republic: “The Project for Strengthening Primary Health Care for Pregnant Women and Newborns in Health Region III 2013-2017”.

in Nicaragua and the Dominican Republic. Therefore, the nationwide rollout has been initiated as a government agenda. At the same time, the geographical limitation was reported by the two-step cascade training system in some of the countries. It was mentioned by some of the project coordinators that it would be better to first concentrate on the establishment of a workable system in selected capital areas, and then gradually expand to other areas in order to diffuse the benefits more effectively.

In terms of the cooperation between basic education and on-site training, while not all the countries have obtained the official approval for the model, all have started the implementation of the model. It was reported at the ex-post evaluation that, with the model in place, the roles and activities for the on-site training for both schools and health facilities were clearly documented at the time of the ex-post evaluation. Thus, the students' learning environment for the on-site training was improved by setting the optimal number and timing of students to be sent to the facility, the better instruction to the students at the facility, and the proactive cooperation of both organizations. According to the beneficiary survey¹⁴ conducted at the ex-post evaluation, 70% or more of the students in all target countries were satisfied with the teachers and clinical instructors at the on-site training.

In Guatemala and Nicaragua, the standardized curriculum for the nursing diploma courses has been approved by their respective schools/universities and adopted in the courses. The private schools/universities also adopted the curriculum. The above-mentioned beneficiary survey for the students revealed that the overall satisfaction score of the students for the education courses was more than 4 on a scale of 1-5 in all target countries. Therefore, the satisfaction level was considered high.

2) Establishment of the regional nursing network

The information sharing among the countries has been continuously conducted after the project completion through the regional video conferences and annual regional conferences. Thus, it was considered that the network among the nursing leaders was strengthened as aimed by the overall goal. Through this process, in addition to the cases of problem solving through concrete advice¹⁵, it was reported the concerned officers and personnel were more motivated to continue and expand the activities through learning other countries' progress and the friendly competition.

The Nursing Department of El Salvador utilized the JICA follow up scheme in 2013

¹⁴ Beneficiary survey was conducted with 15 nursing teachers who received the training and 35 students who were at the last academic year in the schools where the trained teachers belong in each country from October to November 2014.

¹⁵ The information sharing and discussion have been done on the activity progress. Even after the project completion, for instance, Dominican Republic in collaboration with El Salvadorian experts was in the process of developing the new training manuals on ethics and emergency response.

and 2014 as well as other resources to organize the regional nursing conference in El Salvador. The project effects have also been presented in the COMISCA and *Grupo de Profesionales de Enfermería de Centroamérica y del Caribe* (hereafter referred as GPECC¹⁶), and the project achievement was reported in the COMISCA health plan. As a result, the project achievement was widely shared with more than the five target countries in the region. Also, it was observed that the existing regional mechanism has been strengthened through the resource provision by COMISCA to organize the above-mentioned regional conference (2014) and accelerating the implementation of the GPECC activity plan on nursing education.

It was mentioned by several stakeholders that the nursing sector traditionally tended to receive limited resources. Therefore, effective promotion of technical and institutional advancement in nursing through utilization of the existing regional mechanism can be one of the useful measures to keep the motivation and the sustainability.

3) Improvement of nursing care

The project provided the training for nurses as clinical instructors. This training aimed to improve nursing care on different themes such as nursing process, and therefore the training actually played as continuous education for the nurses in service. It was reported by the nurses and health facility personnel at the ex-post evaluation that the development and introduction of practical models¹⁷, tools and formats, and the technical enhancement in the area of nursing process, regional nursing, and reproductive health by the project contributed to the improvement of their knowledge and attitudes towards the patients and their families, and ultimately the quality of nursing care. It was also mentioned that the research on various areas of nursing has been promoted by the nurses and teachers as the project contributed to increasing their attention to the importance of evidence-based nursing care.

4) Promoting factors to realize the project effects

The major promoting factors included the adoption of regional cooperation and triangular cooperation approach. This made possible the continuous provision of regionally-appropriate technical assistance from El Salvadorian experts. It was occasionally mentioned that the El Salvadorian experts also gained confidence and were motivated to do better in their own work by guiding other countries. The utilization of

¹⁶ *Grupo de Profesionales de Enfermería de Centroamérica y del Caribe* (GPECC) is the forum to promote nursing profession in Central America and the Dominican Republic by member country nursing association.

¹⁷ In Nicaragua and the Dominican Republic, in addition to the model for cooperation between basic education and on-site training, standards for nursing process and regional nursing have been developed and approved and implementation has been initiated nationwide.

existing regional mechanism such as COMISCA and GPECC contributed to the realization of the project effects and its sustainability. The approach to involve the key actors, namely the Ministry of Health, Nursing Association and Nursing School, as members of the project advisory committee was considered to be effective. These actors used to have less opportunity to work together due to the different ruling authorities. The joint action of the three actors made it possible to collaborate in the area of policy, institutional, technical and finance aspects necessary for the improvement of basic and continuous nursing education.

Thus, the achievement of the project purpose has contributed to the improvement of nursing education in Central America and the Caribbean and the project has largely achieved the overall goal.

<Bilateral Cooperation>

Overall Goal: Nursing service in the area of midwifery is improved in Santa Ana, Sonsonate and Ahuachapan.

As the indicators in the bilateral cooperation were targeted to 2015, the expected level of achievement was assumed by the progress level at the ex-post evaluation.

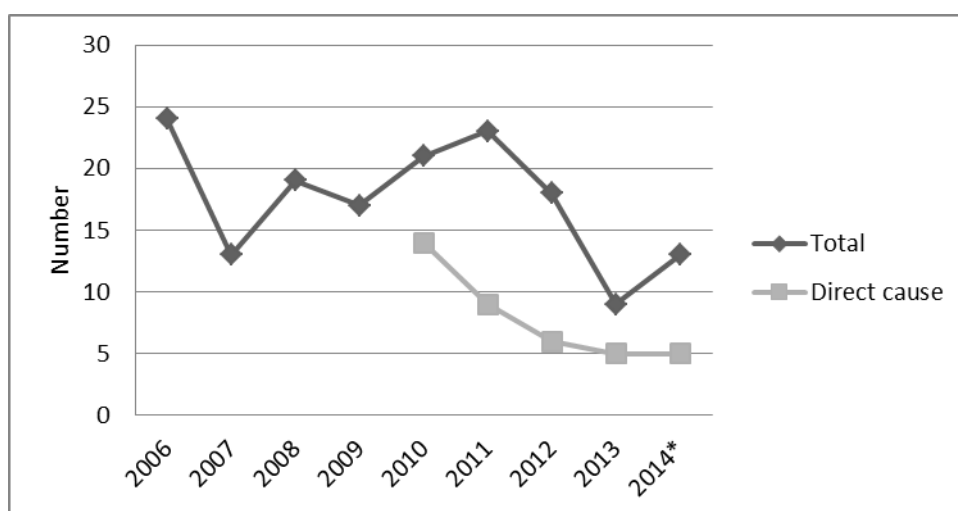
Achievement of Overall Goal

Overall Goal	Indicator	Actual
Nursing service in the area of midwifery is improved in Santa Ana, Sasonate, and Ahuachapan	1. The number of the deliveries at home and deliveries attended by traditional birth attendants are reduced and the number of institutional deliveries is increased by 2015	The number of deliveries by traditional birth attendants was reduced from 2010 to 2014 and the institutional deliveries were increased (97% in 2010, 99.9% in 2014)
	2. Health service in midwifery area by nurses is highly rated by clients by 2015 (rated more than 6 on scale of 1-10)	The client survey conducted by the health office in the western region in 2011 and the beneficiary survey conducted in the ex-post evaluation showed the high satisfaction rate for the midwifery service by nurses. (over 60%)
	3. Maternity mortality rate is reduced to 70% by 2015	The number of maternal deaths in the western region was in declining since 2006 (see figure 2). Maternal mortality ratio (death /100,000 live births) was also reduced from 53.8 (2012) to 30.3 (2013) (Ministry of Health data).

As mentioned above, the targets of all the indicators have largely been achieved.

The activities under the bilateral cooperation component have also continued after the project completion. The trainings in Sonsonate and Ahuachapan Departments have been conducted by the facilitators nurtured by the project. The financial and technical collaboration with the Spanish organization, *Fundacion para el Desarrollo de la Emfermeria*¹⁸ (hereafter referred as FUDEN), was utilized to conduct the nursing training.

The regional committees, regional management committee¹⁹ and three departmental committees on reproductive health have been established and functioned based on the organizational norms and annual plans under the leadership of the health office in the western region. The project initially planned to set up the Continuous Nursing Education Steering Committee. However, the Nursing Director confirmed that the component of continuous education was covered by all 13 existing nursing committees in their respective areas, and therefore the specific committee was not necessary.



Source: Health office in the western region, El Salvador

(* 2014 reflects only up to September)

Figure 2 Trend of the Annual Number of Maternal Deaths²⁰ in the Western Region

¹⁸ FUDEN: *Fundacion para el Desarrollo de la Emfermeria*

¹⁹ Regional committee is in charge of the implementation and management of training, whereas regional management committee deals with the wider promotion of nursing activities in reproductive health in the region.

²⁰ The maternal death was categorized into three: (1) direct cause- death caused by pregnancy and delivery related symptoms, (2) indirect cause- death caused by the chronic diseases or pregnancy related suicide, (3) unrelated – death caused by the accident and others.

The beneficiary survey²¹ with postnatal women was conducted at the ex-post evaluation. The satisfaction level of antenatal care provided by the nurses²² was measured and the comparison was also done between the current and previous births (2-7 years ago) of the respondents. The satisfaction rate for the current antenatal care provided by the nurses was very high with 97%, which was higher than the satisfaction rate (90%) for the previous antenatal care. The main reasons cited by respondents were that the nurses' attention and attitude was better and they were committed to provide better care.

The ex-post evaluation found that one of the outstanding project achievements was the strengthened collaboration between the nurses of primary and secondary facilities. It was reported that, through the joint participation in the project training, the nurses from the different levels now gained respect for each other's roles and collaborated to provide comprehensive continuum care for pregnant and lactating women. In practice, the primary level nurses monitored the pregnant women within their catchment community, and referred the high risk cases to the secondary nurses as soon as they were identified. After the delivery, the primary nurses followed up with the postnatal care of those mothers.

It was also confirmed that the synergetic effect was attained by the project and El Salvadorian policy on community health. The health team comprised of doctors and nurses conducted the outreach service to communities regularly and provided preventive and health promotion services as well as advocacy in collaboration with community organizations, health promoters and traditional birth attendants²³. The health officers in the western region and nurses strengthened by the project have been training the health promoters and traditional birth attendants, utilizing the training program developed by the project.

Institutional deliveries and maternal deaths are in general influenced by multiple factors and it cannot be proven that the project alone brought about the progress. However, given the above-mentioned circumstances, the efforts made by the government officers, nurses and other stakeholders nurtured through the project are believed to have contributed to the achievement of the overall goal²⁴.

Thus, the project has largely achieved overall goal.

²¹ Beneficiary survey was conducted with postnatal women at the primary health facility – 30 women in Santa Ana, 15 in Sonsonate, and 15 in Ahuachapan in October 2014.

²² In general, antenatal and postnatal care is provided by nurses at the primary level and delivery is carried out in the secondary hospital.

²³ In El Salvador, the training and advocacy activities are provided to traditional birth attendants in collaboration with health facilities and health workers to promote institution delivery instead of conducting birth assistance by themselves.

²⁴ It was reported that the community activity includes the sensitization to the police with the provision of emergency delivery kits, and there was a case in which police assisted the delivery in emergency case.

3.2.2.2 Other Impacts

<Regional Cooperation>

In Nicaragua and Guatemala, the network among major public and private universities was established through the curriculum development activity, and the activities continued for the development/revision of other curricula and education program and the improvement of teaching techniques²⁵. Moreover, while the Dominican Republic was not covered for the output of nursing education standardization, the project personnel contributed to the process of curriculum revision led by the Ministry of Higher Education.

<Bilateral Cooperation>

The training has been extended to the eastern, central and metropolitan regions through the Ministry of Health and FUDEN based on the training program developed by the project. The facilitators from the western region were utilized for the training. Moreover, it was reported that when the clinical policy was revised in 2014, the officers and nurses who participated in the project contributed to the process and realization of expanding the nursing responsibility²⁶.

According to the officers from the Nursing Department and the health office in the western region, the training program developed by the project was considered to be highly effective for the improvement of nursing care as well as the health outcomes. Therefore, they were planning to expand it to other areas outside the western region.

While the project purpose for the regional cooperation which was to improve the capacity of nursing teachers and clinical instructors was achieved only partially at the time of project the completion, the achievement level was high at the ex-post evaluation. The project purpose of the bilateral cooperation was achieved at the time of the project completion. The project has largely achieved or expected to achieve the overall goal for both cooperation components. Therefore, the effectiveness and impact of the project are high.

²⁵ In Nicaragua, the university network established through the project was in preparation to organize the nursing education congress for the first time in 2015 and hold the pre-congress meeting in 2014. It was planned for all the nursing schools to present their research results in this congress. Also the study plan of the diploma nursing course was homogenized.

²⁶ The previous clinical policy in 1993 ruled that the nurse could conduct delivery assistance only when the doctor was not available. Whereas, the revised policy in 2014 stated the nurse can conduct all the services in relation to the pregnancy including delivery assistance unconditionally. Nursing Department in El Salvador mentioned that the project contributed to some extent to the realization of policy change through the development of guideline and manuals and training/capacity development of nurses by the project.

3.3 Efficiency (Rating: ②)

3.3.1 Inputs

Inputs	Plan	Actual
(1) Experts	<ul style="list-style-type: none"> • Long-Term 3 (Chief advisor/nursing education, project coordinator, nursing education/project coordinator) • Short-Term (Regional nursing, reproductive health etc) 	<ul style="list-style-type: none"> • Long-Term 4 (Chief advisor²⁷, project coordinator, nursing education/project coordinator, reproductive health)²⁸ • Short-Term 1 (Reproductive health) • Third country 9 (reproductive health, nursing management)
(2) Trainees received	Not mentioned	None
(3) Equipment	Delivery simulator etc	Medical and training equipment on midwifery, video conference equipment, computer and other office equipment
(4) Local cost	Facilitator training cost, material development cost etc	192 million yen/ ²⁹
Japanese side Total Project Cost	290 million yen	267 million yen
El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic side Operational Expenses	<p><El Salvador> Counterpart, nursing education expert, project office, training facility/equipment, local cost (utility cost, fuel)</p> <p>< Guatemala, Honduras, Nicaragua and the Dominican Republic > Counterpart, facilitator, project office, training facility/equipment, local cost (training cost, monitoring and evaluation cost, utility cost)</p>	<p><El Salvador> Counterpart, nursing education expert, project office, training facility/equipment, training activity cost (655,200USD), utility cost</p> <p>< Guatemala, Honduras, Nicaragua and the Dominican Republic > Counterpart, facilitator, project office, training facility/equipment, local cost (training cost, utility cost)</p>

²⁷ Chief advisor was a short-term expert during the extension period (September 2010-August 2011).

²⁸ Chief advisor and project coordinator were assigned for both regional and bilateral cooperation.

²⁹ Approx. 1,940,000 USD. Expenditure of each fiscal year was converted with JICA exchange rate in April of each year from 2007-2011.

3.3.1.1 Elements of Inputs

The Japanese experts were dispatched almost as planned with an addition of one long-term expert on reproductive health. The equipment provided was utilized for the implementation of training and the committees' activities and the inputs from the counterpart countries were mostly provided as planned.

The project contained two components of regional and bilateral cooperation for the five countries. It was reported by the project experts and relevant officers that this approach made it possible to extend the project effects to wider areas with limited inputs and conduct the project monitoring efficiently. At the same time, the counterparts from the regional cooperation countries admitted that the number of visits and the duration of visit of the Japanese and El Salvadorian experts tended to be insufficient, and it was sometimes difficult to obtain the effective assistance in a timely manner. This could be one of the factors that the progress was slower than planned. It was observed that the additional dispatch of the long-term expert on reproductive health was necessary because the effective technical transfer required more personnel than planned. In addition, the workload for the project management such as accounting was reported to be heavy.

Under these circumstances, the project made various efforts to promote efficiency and solidarity among countries with limited time and inputs, such as utilization of third country experts within the region, regional video conferencing, focus on the practical sessions in the training program in order for each country to conduct cascade training effectively, setting the learning objectives to also address the mental aspect of the participants for their empowerment, production of a project anthem etc.

Overall, it was considered that the inputs were appropriate with the project efforts to maximize the limited resources and the financial inputs by the counterpart countries.

3.3.1.2 Project Cost

The actual project cost was 267 million yen against the planned cost of 290 million. Thus, the actual cost (92%) was lower than planned.

3.3.1.3 Period of Cooperation

The actual project period for the bilateral cooperation was three years as planned, whereas the period of the regional cooperation was four years with one year extension, which was longer than planned. Some project personnel reported that it was difficult to grasp each county's situation timely and provide necessary direct support to all the countries. In particular, it took a longer time than expected for the situation analysis and the setup of the central and regional committees in each country. Although it is difficult to simply compare its appropriateness with other projects, for instance, the duration of

similar bilateral technical cooperation projects on nursing education³⁰ was mostly five years and the project purpose was largely achieved in those projects as planned. It can be argued that three years were not enough to achieve the expected purpose considering the regional cooperation approach and the high achievement level of the project purpose at the ex-post evaluation.

As mentioned above, although the project cost was within the plan, the project period exceeded the plan. Therefore, the efficiency of the project is fair.

3.4 Sustainability (Rating: ③)

The project brought about the effects on the establishment of the nursing education training system, improvement of nursing care, and strengthening of the regional nursing network under the regional cooperation component, and on the improvement of the continuous education system and nursing services on midwifery under the bilateral cooperation component. In this section, the sustainability of the above-mentioned effects is discussed.

3.4.1 Related Policy and Institutional Aspects for the Sustainability of Project Effects

<Regional Cooperation>

The national development plans and health plans in all the countries³¹ at the time of the ex-post evaluation aimed at the provision of quality health care services to all, development of human resources for health, strengthening of cooperation between academic institutions and health facilities, and regional reinforcement as priorities. Improvement of nursing education and services was crucial to achieve these goals. The new COMISCA Health Policy (2015-2022) mentioned human resource development as one of the priority objectives and aimed to strengthen the regional cooperation in the health sector. Therefore, it is expected that the regional nursing network established through this project could further accelerate the collaboration with COMISCA³².

³⁰ “Project for Strengthening Nursing Education in El Salvador 1997–2002”, “ Strengthening Continuing Education in Nursing and Midwifery in the South of the Republic of Paraguay 2001-2006”, “ Nursing Education Improvement Project in Uzbekistan 2004-2009”.

³¹ Relevant national policies are followings: Guatemala “National Development Plan Agenda 2012-2016”, “National Health Plan 2014-2019”, Honduras: “Poverty alleviation strategy paper 2001-2015”, “National Health Plan towards 2021 (2006-2021)”, Nicaragua: “National Human Development Plan 2012-2016”, “National Health Plan 2004-2015”, Dominican Republic: “Poverty Alleviation Strategy Paper 2003-2015”, “National Health Plan 2006-2015”.

³² In order to institutionalize the collaboration with COMISCA, Nursing Department in El Salvador initiated the discussion with COMISCA to integrate regional nursing network into COMISCA technical commissions.

The models and guidelines developed through the project were approved by the Ministry of Health and the standardized curriculum was officially adopted. Therefore, the sustainability on the policy and institutional aspect is high.

<Bilateral Cooperation>

El Salvador's "National Development 5 Year Plan 2010-2014" and "National Health Policy 2014-2019" aimed to provide quality health services to all. There is a particular focus on strengthening primary health care for the women of childbearing age and children who tend to have less access to the services. The human resource development for health was regarded as an indispensable approach to achieve the goal. As the roles of nurses for pregnancy and delivery related care have been expanded in the new policy as mentioned above, the improvement of nursing services would remain one of the key objectives. In terms of the training system, the manuals and standards were approved by the Ministry of Health.

Overall, the sustainability on the policy and institutional aspect is high.

3.4.2 Organizational Aspects of the Implementing Agency for the Sustainability of Project Effects

<Regional Cooperation>

Even at the time of the ex-post evaluation, the project coordinator was posted in the Nursing Department³³ in all the countries and El Salvador showed strong leadership as project headquarters. The so-called project name "Angel Project" was still in use. While the project coordinators kept implementing the activities introduced by the project, those activities were mostly considered as part of the routine work. In this sense, the sustainability is and will be secured. Also the collaboration between the Ministry of Health, Nursing Association and Nursing School remained active.

In terms of human resources in the Nursing Department, while the situation varied among the countries, it appeared to be more or less appropriate to maintain the activities. However, in Honduras, the Nursing Department ceased to exist after the health ministry reform in 2014 and nursing education became under the jurisdiction of the Human Resource Development Department. According to the Director of the Nursing Research and Training Center who was assigned as the project coordinator, the current government placed importance on the progress of the project and nursing education and provided the funding support, however on an ad-hoc basis. The President of the Nursing Association and Nursing Director of the National University were of the strong opinion that the

³³ In Honduras, the coordinator was posted in the human resource development department which in charge of nursing education.

restoration of the Nursing Department was essential for the strengthening of nursing education and services. It was mentioned that they will continue to advocate to the government by demonstrating the concrete achievement of the project.

In terms of the committee training system, it was mostly regarded as the official activity of the Ministry in all the countries. There were some comments from the committee members on the obstacles due to the delay of the permit from the Ministry to participate in the activities and the competing tasks along with their regular work. However, the Nursing Departments were committed to reinforce the support system for the committee activities.

Based on the above, while not all the Nursing Departments have the perfect situation, overall it was regarded that the organizational status of the concerned countries was appropriate to continue the activities and maintain the benefits brought about by the project through collaboration between the project coordinator, committee members, and representatives of the nursing association and schools. Thus, the sustainability is high.

<Bilateral Cooperation>

The activities of the regional and departmental committees on reproductive health were integrated in the official regional and departmental annual plans. Therefore the committee members were able to implement the activities for the improvement of continuous education and nursing care on midwifery as part of the routine work. The training centers equipped by the project functioned properly at the time of the ex-post evaluation. Thus, the sustainability is high in this sense.

3.4.3 Technical Aspects of the Implementing Agency for the Sustainability of Project Effects

<Regional Cooperation>

It was concluded through the interviews and beneficiary survey during the ex-post evaluation that the project coordinator and main members of the central and regional committees in each country understood the technical contents sufficiently and they customized the components according to their contexts. The manuals and standards on different themes have been developed and revised and the El Salvador headquarters was committed to provide necessary assistance when required. Therefore, the technical sustainability is high.

<Bilateral Cooperation>

According to the interviews and beneficiary survey during the ex-post evaluation, the capacity and commitment to maintain the activities by the regional and departmental

committee members were regarded to be high, backed up by the Nursing Department and the health office of the western region. Thus the technical sustainability is high.

3.4.4 Financial Aspects of the Implementing Agency for the Sustainability of Project Effects

<Regional Cooperation>

In Nicaragua and the Dominican Republic, the activities on nursing education were included in the annual plan of the Nursing Department in 2015 and the major activities have been budgeted by the Ministry of Health, development partners, university or nursing association. The annual plan including the nursing education activities for 2015 in Guatemala was still in the appraisal process, but the Nursing Director estimated that around half of the proposed budget would be approved. Considering the fact that there was no specific budget allocated for nursing education before, the possibility of implementing the plan seemed high under the current government. In Honduras, the activity plan by each committee will be submitted to the Human Resource Development Department after its compilation. While there were no specific budgets allocated for nursing education until the previous year, the project coordinator was instructed by the current Vice Minister to apply for the activity budget when necessary. In fact, the funds were provided for the training activities in one region in late 2014. In addition, in all the countries, the project coordinators incorporate the concerned activities into the routine occasions such as regular annual meetings or inspections³⁴. During those occasions, the sensitization or monitoring of the activities has been done. The budgets of the nursing association and schools have also been utilized occasionally.

As above, it was considered that each country would manage to allocate certain financial resources to sustain the benefits brought about by the project. Thus, the financial sustainability is high in general.

<Bilateral Cooperation>

The Nursing Department's 5 year Strategic Plan included the activity plan for nursing education including reproductive health, but the budget for 2015 was still under the appraisal process. The activities of the 13 nursing committees including on reproductive health were regarded as the official work of the Ministry and it was the case also in the western region. The opportunity of the routine hospital inspection or regular meeting was used to provide technical assistance or monitoring for the relevant staff. The materials

³⁴ For instance, in Nicaragua, national meeting with directors of district offices and hospitals are organized three times a year. Nursing Department was planning to utilize this opportunity to orient them on the standards for nursing process. In Guatemala, the monitoring and follow up of the regional committees' activities was conducted during the regular inspections in the regions.

necessary for the training were prepared by the health offices. As there was an agreement of not providing daily allowance for the nursing in-service trainees, the organization of the training could be managed with relatively low cost.

Thus, the financial sustainability is relatively high.

As mentioned above, no major problems have been observed in the policy background and the organizational, technical, financial aspects of the implementing agencies. Therefore, the sustainability of the project effects is high.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

The project was implemented in the area of basic nursing education and continuous training in Central America and the Dominican Republic. It aimed to improve continuous nursing education in midwifery for El Salvador as bilateral cooperation, and to improve the capacity of nursing teachers and clinical instructors in Guatemala, Honduras, Nicaragua and the Dominican Republic as regional cooperation. The purpose of this project was consistent with the health policies and development needs of those countries as well as Japan's ODA policy, thus its relevance is high. In terms of the regional cooperation, while the standardization of nursing education and the establishment of training, and monitoring and evaluation system had been in progress, the sustainability of the training system had been observed half way and the achievement level of the project purpose by the indicator measurement could have not been confirmed. Therefore, the project had achieved its purpose at a moderate level at the time of the project completion. Subsequently, the project achievement level was found to be high at the time of ex-post evaluation with the progress of standardization of nursing education and establishment of fairly good self-sustainable training system in a few countries/local areas, and the positive impact on the improvement of the regional nursing network and nursing services was also observed. For the bilateral cooperation, the project largely achieved its purpose at the time of the project completion, and the positive impact on the strengthening of the continuous education training system in Santa Ana Department, the increase of institutional delivery and the improvement of nursing services in the western region including Sonsonate and Ahuachapan Departments was observed. Thus, the effectiveness and impact of the project are high. Although the project cost was within the planned, the project period was extended by one year. Therefore, the efficiency of the project is fair. In terms of the sustainability, while the situation varied among the countries, the models and manuals developed through the project were officially approved and the activities were

integrated into the national plans in some countries. Therefore, the sustainability of the project is high.

In light of the above, this project is evaluated to be highly satisfactory.

4.2 Recommendations

4.2.1 Recommendations to the Implementing Agencies

<Regional Cooperation>

Strengthening of collaboration between major stakeholders in nursing education

The Nursing Department/Ministry of Health, Nursing Association, and Nursing School are major actors and hold the key roles in the policy, institutional, and technical development for nursing education. The project employed an approach to bring these actors together into the project advisory committee. As a result, the standardization of the curriculum, strengthening of the training system, integration of training plans, and financial collaboration were enhanced. Therefore, this approach is regarded as one of the promoting factors. While this collaboration was observed in all the countries, the level varies from one country to another. It is expected that the Nursing Department/Ministry of Health plays a leading role and accelerate the collaboration by organizing regular joint meetings among the concerned officers, sharing of annual plans or joint planning, joint training and monitoring, and frequent discussions on the coordination of basic education and on-site training. This could lead to the effective and efficient expansion of the standard models and sustained monitoring and training.

Expansion of the cascade training system through committees

The cascade training system utilizing the central and regional committees was considered to be effective to nurture the regional human resources and to expand the training to wider areas with relatively low cost. However, it was found that the two-step cascade of the central and regional committees placed limitation on the geographical coverage. One of the approaches to extend the effects brought about by the project to wider areas is to involve regional health offices proactively. In the areas where there are active regional committees, namely health facilities or schools, the project coordinator could engage the regional health officer as a coordinator within the region and set up a sub-national committee with a pool of active and skilled regional committee members/facilitators. This approach is expected to diffuse the training activities to organizations other than the existing regional committees.

Utilization of the existing regional mechanisms

It is expected that, in order to enhance the regional cooperation, further utilization of the existing regional mechanisms such as COMISCA and GPECC should be pursued through active participation in the regular meetings/conferences, presentations on the research findings, and information sharing/exchange among the members. The new COMISCA health policy aimed to assist the effective and efficient policy realization of the member countries through strengthening of regional cooperation. According to the Director of the COMISCA Secretariat, while the project effects were valued, it was recommended to construct a more institutionalized relationship with the nursing network rather than the ad-hoc joint activities. This could increase the opportunity for resource mobilization by COMISCA. Therefore, it is expected that the Nursing Department of El Salvador will accelerate the discussion with COMISCA to integrate the nursing section into COMISCA's technical commissions in order to contribute to the overall human resource development for health in the region. It is also recommended to each country to proactively participate in nursing or health conferences in the neighboring countries – e.g. the nursing education congress in Nicaragua planned in 2015.

<Bilateral Cooperation>

It is recommended that the Nursing Department and the health office in the western region develop a best practice booklet with innovative tools and successful stories based on the experiences in the western region. It should be shared with other regional health offices together with their training materials and manuals in order to expand the activities.

4.2.2 Recommendations to JICA

None

4.3 Lessons Learned

Effectiveness and challenges of regional and triangular cooperation

The project adopted the regional cooperation and utilized the resources nurtured by the previous JICA cooperation, including the third country experts from El Salvador and Paraguay. The latter is called triangular cooperation. It was concluded that the project was a successful case to realize the benefits by synergetic effect of the two approaches. It was confirmed that the counterpart countries could obtain concrete advice and solutions through tackling the common challenges and objectives among countries with a common language, culture and environment and sharing their experiences and progress among each other. They could also raise motivation through peer competition. Strictly speaking,

the clinical policy and nursing education system should be developed under each country's system and law, and regional integration is not always possible. However, the project witnessed that several issues in each country have been addressed by the joint learning on nursing education and services. Therefore, the regional cooperation approach worked in this case.

El Salvador showed the strong leadership as project headquarters and the El Salvadorian experts continued to provide proactive technical support to the neighboring countries even after the project completion. They also provided opportunities for face-to-face interaction such as video and regional conferences. This triangular approach is key to maintain or accelerate the activities in each country after the project completion.

El Salvador's strong leadership and commitment³⁵ have been presumably consolidated by JICA's extended and sequential cooperation, consisting of two technical cooperation projects, third country training, and the follow up scheme for more than 15 years. This could also tighten the relationship of the participating countries. Continuous cooperation is regarded to be useful to enhance the triangular approach.

On the other hand, it can be assumed as discussed earlier that the regional cooperation requires a longer time compared with the bilateral cooperation. It is necessary to carefully decide the project period and the number and positions of experts when planning regional cooperation.

Effectiveness and challenges of the cascade training system through committees

The cascade training system through committees is effective to expand training with relatively low cost. At the same time, the two step cascade system tends to result in limited geographical coverage. The considerations for the planning of similar projects should include the geographical scope, human and financial resources of the central and regional offices, expansion process, and ultimate activity or behavior change to happen.

- Geographical scope: When the national cascade system in the country or the capacity of the regional office is relatively high, it is possible to adopt the three-step cascade with the involvement of sub-national level for wider or nationwide coverage. If it is not possible, it is necessary to limit the geographical area and set a clear goal at the onset of the project.
- Expansion process: As a necessary step before expansion, it is important to establish an appropriate and workable system and develop human resources in

³⁵ The project technical manager in El Salvador during the project period was retired but worked for the project voluntarily. Deputy nursing director mentioned that all the officers working in nursing have conviction and full commitment to implement necessary activities to provide the best possible care to the people no matter what resources available.

selected areas. Particularly, in case of regional cooperation where the activities are most likely implemented simultaneously in more than one country, the basic contents can be commonly introduced, but the details should be customized based on each country's or region's context. Thus, it is important to first establish the functional model in the selected areas.

- **Monitoring of training:** The implementation of training should not be the goal itself but it is important to set a clear approach that can bring about the effects or behavior changes aimed by the training, through developing monitoring standards and tools. In this regard, this project strengthened the implementation of monitoring and evaluation and follow up of the training. While the monitoring from the central committees to the regional committees was limited due to the financial constraints, some of the regional committees, such as hospitals or schools, understood its importance and could realize the intended effects of the training by utilizing monitoring tools. .
- **Cooperation between basic education and continuous education:** In principle, basic education at school (pre-service) and continuous education for nurses (in-service) should be linked each other for improvement of nursing services. The project provided training to nurses as clinical instructors in order to improve the learning environment for the students. This training resulted in the improvement of nursing care as continuous training for the nurses in service. Therefore, it is considered to be effective and efficient to address both pre-service and in-service education together for the development of nursing human resources. In this regard, promotion of the collaboration between the Ministry of Health, Nursing Association and Nursing School would be a useful approach.

Importance of setting appropriate indicators

The two indicators set for the project purpose of the regional cooperation component were not measured by the time of the project completion. The project aimed to ultimately benefit the nursing students through the development of training programs, capacity development of facilitators, training of nursing teachers and clinical instructors, and improvement of education programs. However, this requires a certain time. It was observed that the benefit of the project had not reached to the level of students by the time of the project completion, and this seemed to be the major reason why the indicators were not measured. Considering that the project covered five countries with the regional cooperation approach, the targets set for the expected outputs seemed to be a little too high. It is crucial to set appropriate indicators and targets based on the planned inputs and

to measure the progress toward the end of the project. The possible indicators include the evaluation of the training course and facilitators by the nursing teachers and clinical instructors and/or their understanding level of its contents, the percentage of facilities/schools introducing the standards/manuals developed under the project outputs, and the establishment of the model on the training management cycle from the planning to monitoring and evaluation among the Ministry of Health, central and regional committee and nursing teachers and clinical instructors on site. It is useful to include these indicators which can monitor the progress toward achieving the goal.

Annex: Achievement of Outputs and Project Purpose

【Regional Cooperation】

	Project completion	Ex-post evaluation
Output 1	Largely achieved (development of training programs/materials and implementation of the training)	Achieved (continuous implementation of training based on the developed programs/materials)
Output 2	Not achieved (incompletion of the standardized curriculum development)	Achieved (completion and adoption of the standardized curriculum)
Output 3	Partially achieved on indicator 1 (partial approval of the model on basic education/on-site training cooperation)	Achieved (implementation of the model on basic education/on-site training cooperation in all countries)
Output 4	Partially achieved on indicator 2 (the committees initiated, but the monitoring was partial)	Achieved (continuous activities of each committee including monitoring in all countries)
Project Purpose	Quantitative (indicator): not achieved (no data) Qualitative: partially achieved The establishment of the cascade training system, standardization of curricula, development of the model were in progress but not complete. Also the benefit to the nursing teachers and clinical instructors and students was limited.	Quantitative (indicator): largely achieved Qualitative: achieved Through development of standardized curriculum, development of standards or manuals, continuous activities of central and regional committees, and university networking, the benefit has reached to the students through the teachers/instructors in the selected major facilities/regions.

【Bilateral Cooperation】

	Project completion	Ex-post evaluation
Output 1	Achieved (development of midwifery training programs/ materials, implementation of training)	Achieved (continuous implementation of training based on the developed programs/ materials)
Output 2	Achieved (development and implementation of the monitoring and evaluation standard)	Achieved (continuous implementation of monitoring and evaluation based on the standard)
Output 3	Achieved (implementation of training and monitoring under the western region health office)	Achieved (continuous implementation of training and monitoring by committees under the western region health office)
Output 4	Partially achieved on indicator 1 (a manual for continuous education committee not developed)	Achieved (training implemented by facilitators in all departments of the western region and continuous education covered by the existing committees)
Project Purpose	Largely achieved (high rate for training facilitators, training programs and monitoring standard approved)	Achieved (high rate for nursing care by pregnant women, continuous implementation of the training programs and monitoring standard)