Republic of Ghana

FY2019 Ex-Post Evaluation of Technical Cooperation Project "The Project for Improvement of Maternal and Neonatal Health Services Utilising CHPS System in the Upper West Region"

> External Evaluator: Mayumi Hamada Foundation for Advanced Studies on International Development

0. Summary

This project was implemented to improve maternal and neonatal health services through capacity development, institution building and enhancement of community participation and its supporting system in Upper West (hereinafter referred to as UW) Region. The direction of the project, which is aimed at improving maternal and neonatal health (hereinafter referred to as MNH) services by utilizing Community-based Health Planning and Services (CHPS) through Community Health Officer (hereinafter referred to as CHO), sufficiently corresponds with Ghana's development policies and development needs as well as with Japanese aid policy. Thus, relevance of the project is high. The achievement of outputs, human resources development, institution building and community mobilisation, by the project completion is high, and the project purpose of improving maternal and neonatal health services was achieved. At the time of the ex-post evaluation, the overall goal is achieved, and other positive impacts such as contribution to improvement of maternal mortality ratio is observed. Thus, the project's effectiveness and impact are high. The project costs exceeded the plan and the project period slightly exceeded the plan. Therefore, the project has fair efficiency. Some minor problems have been observed in terms of financial aspect. Therefore, the sustainability of the project's effects is fair. In light of the above, this project is evaluated to be satisfactory.



Project Location

CHPS Compound

1.1 Background

Ghana had a regional gap in terms of health service provision. Access to basic

health services was limited, especially in northern Ghana area and rural areas. To improve access to health services, the Government of Ghana (hereinafter referred to as GOG) adopted CHPS policy utilising CHOs in 1999. The essential part of the CHPS policy is to conduct training for community health nurses (hereinafter referred to as CHNs) for about 2 weeks to become CHOs and then station them in CHPS zones, each consisting of several communities with a population of 3,000 to 4,500, in order to provide primary health care (hereinafter referred to as PHC) services such as health education, enhancement of community participation and referrals. The improvements to service coverage based on this policy were initially stagnant due to insufficient administrative capacity at the district level, insufficient number and capacity of CHOs who were dispatched to the CHPS zones and low community participation. Hence, upon official request from the GOG, JICA conducted a technical cooperation project "Project for the Scaling up of CHPS implementation in Upper West region" (March 2006–February 2010) in the UW Region, where the health indices such as the under 5 mortality rate were worse than other regions. This project was implemented to reinforce the UW Regional Health Administration in providing CHPS services and was designated as Phase 1 of the titled project. This project, phase 2, was implemented to strengthen MNH services utilising a service-delivery system by CHOs of CHPS having been strengthened within Phase 1 project. Additionally, 64 CHPS compounds were constructed and medical equipment was procured through a grant aid cooperation project entitled "The Project for the Development of CHPS Infrastructure in the Upper West Region¹" as a part of JICA program named "The Programme for Promoting Mother and Child Health Services focusing on the Upper West Region".

Overall	Goal	Maternal and Neonatal Health (MNH) services in UWR is				
Overall	Goal	continuously improved				
Ducie et I		Improve Maternal and Neonatal Health (MNH) services				
Project I	rurpose	utilizing CHPS system in UWR				
	Output 1	Capacity building on MNH services improved				
Outputs	Output 2	Systems for MNH services strengthened				
Outputs	Output 3	Community mobilization and support systems on MNH				
		strengthened				
Total	cost	1.100				
(Japanese Side)		1,100 million yen				

¹ The GA was concluded in 2012, and the project was completed in 2015.

https:/www2.jica.go.jp/ja/evaluation/pdf/2018_1161330_4_f.pdf

Period of Cooperation	September 2011–September 2016				
Target Area	UW Region				
Implementing Agency	Ghana Health Services (hereinafter referred to as GHS)				
Other Relevant					
Agencies/	Ministry of Health				
Organizations					
Consultant in Japan	IC Net Limited				
	Technical Cooperation				
	- "Project for the Scaling up of CHPS Implementation in Upper				
	West region" (2006–2010)				
	- "Project for Strengthening Community-based Health Services				
	Focusing on the Life-Course Approach in the Three Northern				
	Regions" (2017–2022)				
	Grant Aid Cooperation				
Related Projects	- "The Project for the Development of CHPS Infrastructure in				
Related 110jeets	the Upper West Region" (May 2012)				
	Other International Organizations and Donors				
	- "Home-based Care for Maternal and New-born Care Project"				
	(UNICEF)				
	- "Maternal Child Survival Project" (USAID, 2016–2018)				
	- "Health Quality Improvement for Maternal, Neonatal and				
	Child Health in the Upper West Region" (Plan International				
	Ghana, 2017–2018)				

1.3 Outline of the Terminal Evaluation

1.3.1 Achievement Status of Project Purpose at the Terminal Evaluation

The achievement of the project purpose was almost high, although not all four indicators were expected to be achieved by the time of project completion. However, among the four indicators, achieving Indicator 2—the proportion of skilled delivery—and Indicator 4, regarding coverage of the postpartum observation sheet, were regarded as difficult.

1.3.2 Achievement Status of Overall Goal at the Terminal Evaluation (Including other impacts)

Three of the four indicators for the overall goal are the same as those of the project's purpose. Continuous improvement of MNH services in UW Region was to be measured by checking for continuous improvement of these indicators after the project's

completion. The expected achievement of the overall goal was high, owing to upward trend of all three indicators.

1.3.3 Recommendations from the Terminal Evaluation

The following recommendations were made upon the terminal evaluation.

Training: Continue facilitative supervision (hereinafter referred to as FSV), strengthen1the contents of safe motherhood training and introduce CHPS training components according to the training needs of midwifery schools2Equipment and tools: Strengthen the reporting systems, such as for updating inventories of existing equipment and stock of registers, and provide orientation to newly assigned staff on how to use equipment3FSV: Provide orientation to newly assigned staff and plan and implement FSV in an integrated way with other programmes efficiently and continuously4Maternal and neonatal death audits (hereinafter referred to as MNDAs): Add monitoring elements for quality improvement into FSV, integrate follow-ups of MNDAs into the FSV meeting and introduce peer review in hospitals and polyclinics5Engagement of DAs: Accelerate the engagement of DAs and take initiatives for the governance of CHPS6Financing: Develop an annual financial plan for health services provision7obstetricians to regional and district hospitals, procure medical equipment and consider transportation for obstetric emergencies8Horizontal learning on CHPS policy implementation for further PHC services: Disseminate training packages comprising good practices to other regions and the central level; respond to emerging PHC challenges such as non-communicable diseases, aging and nutrition through the CHPS service package	-						
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diseases, aging and nutrition through the CHPS service package	ð	central level; respond to emerging PHC challenges such as non-communicable					
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2. Outline of the Evaluation Study

2.1 External Evaluator

Mayumi Hamada, Foundation for Advanced Studies on International Development

2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

Duration of the Study: October 2019–October 2020

Duration of the Field Study: December 8, 2019–December 28, 2019

2.3 Constraints during the Evaluation Study

In response to the COVID-19 pandemic, the GOG decided to close its land, sea and air borders, after imposing 2 weeks of self-isolation on visitors to the country. JICA also announced its principle to suspend all of its foreign visits for the time being. As a result, the second field visit scheduled in March 2020 was cancelled. Consequently, information collection became limited, as compared with the original study plan, although additional information was collected through emails and a local consultant, and tentative evaluation results were shared with relevant government officer counterpart through online meetings and the local consultant.

3. Results of the Evaluation (Overall Rating: B²)

3.1 Relevance (Rating: $(3)^3$)

3.1.1 Consistency with the Development Plan of Ghana

At the time of the ex-ante evaluation, *Health Sector Programme of Work* (2007–2011) prioritized the improvement of MNH, while *Millennium Development Goals* Acceleration Framework Action Plan (2010) emphasized the importance of reducing the infant mortality ratio (MDG4) and maternal mortality rate (MDG5). In addition, as already mentioned, the CHPS policy, which was established as a national policy in 1999, set a goal that all the Ghanaians would be able to receive CHPS services by 2015.

From the project's implementation until its completion, *Ghana Shared Growth* and Development Agenda (GSGDA) II, (2014–2017) as well as The Health Sector Medium-term Development Plan (2014–2017) underlined the importance of rectifying the gap in access to health services; strengthening the management, efficiency and governance of health service provision; and improving health care for mothers, children and youth by promoting the CHPS policy. The revised CHPS policy in March 2016 also maintained the direction to promote CHPS and upheld the commitment to reducing disparities in access to health services by 2030 in order to achieve universal health coverage⁴.

Therefore, consistency was high between the project's direction—aimed at improving maternal and child health services by utilizing CHPS to reduce maternal and neonatal death rates in UW Region—and Ghanaian development policies, from the planning stage until the project's completion.

² A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

³ ③: High, ②: Fair, ①: Low

⁴ National Community-based Health Planning and Services Policy–Accelerating the Attainment of Universal Health Coverage and Bridging the Access Inequity Gap (P22)

3.1.2 Consistency with the Development Needs of Ghana

At the time of ex-ante evaluation, there was concern in Ghana over the low possibility of the country achieving its Millennium Development Goals (hereinafter referred to as MDGs), especially regarding maternal mortality rate, which was recognized as an urgent problem. In UW Region, among other regions, the institutional maternal mortality ratio (per 100,000 births) fluctuated. It was 120.6 in 2008, which was higher than the national average, while it was 240.0 in 2009, which was double compared with the previous year. In addition, the infant mortality ratio and under 5 mortality rate in UW Region were higher than the national averages in 2008. Furthermore, little donor support was provided for improving the neonatal mortality rate, unlike for the infant mortality rate, despite the neonatal mortality rate being 44.0, which was 88% of the national average infant mortality rate (per 1,000 births), i.e., 50.0. Thus, the needs to target neonates was judged as high⁵.

At the time of the project's completion, the maternal mortality ratio in Ghana (per 100,000 births) was 314 in 2016⁶, which was improved compared with 339 in 2010. However, the MDGs' target of 185 per 100,000 births was not achieved. On the other hand, the institutional maternal mortality ratio (per 100,000 births) was 151.1 in 2016, which was significantly improved compared to the ratio of 350.7 in 2010⁷. However, the infant mortality rate (per 1,000 births) was 25.3⁸ in 2016, as compared with 30.1 in 2010, showing minor improvement. Other donors' support for neonates in UW Region showed no specific changes⁹.

Although the institutional maternal mortality ratio in Ghana significantly improved since the planning stage, the improvement to the maternal mortality ratio (per 100,000 births) and neonatal mortality rate remained small. Therefore, the project's consistency with the development needs since the ex-ante evaluation until the project's completion was high.

3.1.3 Consistency with Japan's ODA Policy

At the time of the Ex-ante Evaluation, *Country Assistance Programme for Ghana* (2006) by the Ministry of Foreign Affairs prioritized two issues: 1) improvements to community health and infectious diseases and 2) strengthened planning, implementation and monitoring. Additionally, *JICA's Position Paper on the Health Sector* (2010) indicated that maternal health was a priority issue. In addition, Japan's *International*

⁵ The Ex-ante Evaluation Summary Sheet

 $^{^{6}\} https://data.worldbank.org/indicator/SH.DYN.NMRT?locations=GH \& view=chart,\ DHIMS-2@11.12.2019$

⁷ https://data.worldbank.org/indicator/SH.DYN.NMRT?locations=GH&view=chart, DHIMS-2@11.12.2019

⁸ https://data.worldbank.org/indicator/SH.DYN.NMRT?locations=GH&view=chart, DHIMS-2@11.12.2019

⁹ Interview with the implementing organization

Health Policy (2011–2015), which was announced at the MDGs the United Nations Summit in 2010 and included a financial commitment of 5 billion dollars for 5 years from 2011 onward, placed importance on introducing a health service package proven to be effective for reducing maternal and neonatal mortality rates. Therefore, the project's direction, aimed at improving maternal and child health services toward reducing maternal and neonatal mortality rates by utilising CHPS in UW Region, was highly consistent with Japan's aid policy at the time of planning.

Based on the above, this project was highly relevant to Ghana's development plan and development needs as well as Japan's ODA policy. Therefore, its relevance is high.

3.2 Effectiveness and Impact¹⁰ (Rating: ③)

The Project Design Matrix (hereinafter referred to as PDM) of this project had been changed 3 times during the project implementation. The PDM at the time of the project's completion was PDM4¹¹, i.e., Version 4 (hereinafter, Versions 1-4 are referred to as PDM1–PDM4). In the initial plan, 1) the outputs included those that were too high for its activities, such as coverage of antenatal care (hereinafter referred to as ANC) and postnatal care (hereinafter referred to as PNC) as well as increased coverage for skilled delivery. Furthermore, 2) the logical relationship between the project purpose and the overall goal was not in accordance with a means-and-ends relationship (or a cause-and-effect relationship). For these reasons, reconfirming and sorting out the objectives became necessary. When the PDMs were revised by the project, eight outputs at PDM1 were revised into three outputs: capacity development, institution building and community mobilization. The coverage of ANC and PNC and increased coverage for skilled delivery, as mentioned above, were revised to become the indicators of the project purpose. The logical relationship between these revised objectives was assessed as being appropriate. On the other hand, the overall goal is the continuation of the improved status of MNH services, which is almost the same as the project purpose, and not in the logical relationship based on the means-and-ends relationship. Hence, the overall goal was inappropriate in nature. However, in this project, no measurable objective that would be achievable within 3 years or so after the project's completion was expected¹², and setting an alternative indicator is difficult, considering the project plan. The project's original aim seemed to be set as the super goal "MNH status in UW Region is improved." Its

¹⁰ The sub-rating for effectiveness is to be considered for the impact.

¹¹ In this project, PDM3 was approved before PDM2 was. Thus, the next version of PDM1 is PDM3. Project Completion Report (P10).

¹² Interview with Japanese expert

indicator was decrease in maternal and neonatal mortality rates, which was set as 5-10 years after the project's completion. Based on the above, this evaluation was conducted based on the outputs, the project purpose and the overall goal shown on PDM4, and the super goal was analysed as an expected positive impact.

3.2.1 Effectiveness

3.2.1.1 Project Output

The achievement status of the outputs at the time of the project's completion is shown on Table 1. Output 1 (capacity development of health services) is assessed to be achieved due to widely conducted training, provision of medical equipment and progression of training of trainers. As for Output 2 (institution building), although the percentage of FSV conducted by the region over the districts was much lower than the target value, progress occurred in referrals, the development of tools for FSV and MNDA, dissemination of these tools through training and application of them at the sites. Thus, Output 2 was almost achieved. The reason why the FSV implementation rate by the region over the districts fell below the target value was insufficient budget and manpower¹³. It was pointed out that the target value of the indicator for FSV from the region over the districts was unrealistic, so the target frequency of FSV by the regional health management team (hereinafter referred to as RHMT) over district health management teams (DHMTs) was decreased from four times per year to two times per year at the Eighth JCC Meeting. Thus, the target value may have originally been set too high. However, the target value was not modified. Hence, the achievement of the indicator was almost achieved. Output 3 (community mobilization and its support system) was achieved because the capacity of CHOs for community mobilization and Information, Education and Communication (hereinafter referred to as IEC) materials were developed, and annual updating of community health action plans (hereinafter referred to as CHAPs) remarkably exceeded the plan.

Based on the above, achievement of the outputs was high, as Outputs 1 and 3 were achieved by the project's completion and Output 2 was almost achieved.

¹³ Project Completion Report (P69)

Output		Indicator	Achievement	Achievemen Level
	1-1	By 2015, target number of trainee completed CHO fresher training is achieved. (CHN:240)	- 286 trained In addition, 631 students trained (917 in total)	0
	1-2	By 2015, target number of trainee completed CHO refresher on CHOs at CHPS for ANC, emergency deliveries and PNC training is achieved. (CHO:341)	- 346 trained on ANC/delivery/PNC - 346 trained on Community Based MNH	Ø
Output 1: Capacity building on MNH	1-3	By 2015, target number of trainee completed safe motherhood training is achieved. (SDHT:95)	 128 SDHT staff (midwives) trained on safe motherhood Additionally, following training was conducted. 62 CHNs/enrolled nurses at SDHT trained on health checkups for pregnant women, emergency delivery and PNC 45 trainers received refresher training at District Hospital 104 trained at refresher training for district-based midwives 	0
services improved (©)	1-4	By 2015, planned medical equipment is delivered to SDHT	 All the planned medical equipment, based on the agreement with CP, was provided with 60 HCs at the target SDHTs through district medical administration in the 2nd year. After the provision, each district is responsible for maintenance and follows up through site monitoring of midwives and FSV. Most of the provided equipment was utilized according to the survey conducted in the latter half of the 4th year (October 2015). 	Ø
	1-5	By 2015, tutors of the training schools of health workers are trained to conduct the theory session of the CHO fresher training	 10 tutors at NAP trained for capacity development 2 training conducted at CHN training schools, including theory session and field training 23 tutors at training schools at Wa and Lawra trained for capacity development training (including principal), and 6 trained for NAP/NAC refresher training 8 tutors at midwife training schools trained 	0
	2-1	Referral/counter-referral is Enhanced.		Ø
	2-1-1	By 2015, target number of trainee completed referral/counter-referral training is achieved. CHO SDHT in charge, Hospital: total 20 per district	- 1,793 trained in total	Ø
	2-1-2	By 2015, implementation rate of using the revised tools and methods is more than target rate. - Hospital: 80% - SDHT: 80% - CHPS: 80%	 Utilization rate of Referral Register: Hospital 88%, Polyclinics 100%, HC 100%, CHPS 100% Utilization rate of PNC stamp: Hospital 100% Polyclinics 100%, HC 95% (at the time of Terminal Evaluation in 2015) 	Ø
	2-2	FSV is strengthened.		0
Output 2: Systems for MNH service strengthen ed	2-2-1	By 2015, target number of trainee completed FSV training is achieved. - CHO: 341 - SDHT:195 (3 personnel per HC) - DHMT: 110 (10 personnel per district) - RHMT: 28 (80% of total 35)	- CHO/CHNs: 376 - SDHT: 318 - DHMT: 176 - RHMT: 46	0
(O)	2-2-2	By 2015, implementation rate of monitoring using the revised tools and methods of FSV is more than target rate. - FSV by RHMT over DHMTs: 100% - FSV by DHMT over SDHTs: 80% - FSV by SDHT over CHOs: 50%	Although FSV by RHMT over DHMTs was below the target (50%), others surpassed the target (91%, 86%). *At the 8th JCC held in December 2015, it was agreed to decrease the frequency of FSV by RHMT over DHMTs from the original plan, i.e., 4 times per year, to 2 times per year. However, the indicator was not modified.	Δ
	2-3	Maternal and Neonatal Death Audit (MNDA) is strengthened.		0
	2-3-1	By 2015, training of regional MNDA team and zonal MNDA teams will be conducted in the third year. In total 4 times.	- 5 times in total (1 in the 2nd year, 2 in the 3rd year, 1 in the 4th year, 1 in the 5th year)	0
	2-3-2	By 2015, follow up by the regional and zonal MNDA team will be conducted half yearly after the training	 - 6 times in total. After the above 5 MNDA team training, follow-up was conducted within half a year for each training. 	0
Output 3:	3-1	CHOs are trained on Community Mobilization.		Ø
Communit y	3-1-1	By 2015, target number of trainee completed CHO refresher training on Community mobilization is achieved. CHO:341	- 376 in total	Ø
mobilizati on and support	3-1-2	By 2015, number of CHPS zones with Annually Updated Community Health Action Plan (CHAP) is increased to 80.	- 140 in total	Ø
systems on MNH	3-2-1	By 2015, local IEC materials for community promotion are developed.	 - By 2015, flip charts and video clips (2 languages) were developed as IEC materials for promoting ANC/skilled delivery/PNC. 	0
ed (©)	3-2-2	By 2015, target number of trainee completed CHO refresher training on MNH service promotion utilizing local IEC materials is achieved. CHO:341	- 343 CHOs/CHNs in total	Ø

Table 1 Achievement Status of Outputs until Project

Source: Project Completion Report P14-17

Remarks 2: The Japanese version of the Output Indicator 3-2-2 shows the target level as 341 CHOs/CHNs, while the English version states as 341 CHOs.

Remarks 3: The abbreviations above are as follows. SDHT: Sub-District Health Team

NAP: Nurse Assistant Preventive NAC: Nurse Assistant Clinical IEC: Information, Education and Communication

3.2.1.2 Achievement of Project Purpose

The achievement status of the project purpose upon the project's completion is shown in Table 2. There was a gap between the actual values from District Health Information Management System 2 (DHIMS2) and those from the end-line survey.

Considering the representativeness of the collected data, the data from DHIMS2—the national information system—were used as the primary data for this analysis. However, the DHIMS2 data have a limitation, as pointed out at the time of the terminal evaluation¹⁴. At the time of the Ex-post Evaluation also, the method of projecting pregnancy data in DHIMS2 was still the same. This point was considered in the evaluation analysis.

As for the evaluation of the achievement status, if the results approached more than 80% of the target value, it was assessed as "almost achieved"¹⁵. Indicators 1 and 2 were almost achieved, and Indicator 3 was achieved, while the achievement of Indicator 4 was medium. (Among the four indicators, two indicators were achieved, one was almost achieved and one was not achieved.) Hence, the achievement status of the project purpose is assessed to be high. In addition, Outputs 1-3 contributed to achievement of the project purpose respectively¹⁶. This project combined three major components; the capacity development of stakeholders such as CHOs and midwives, through widely conducted training (Output 1); the development of forms related to referral systems and their dissemination through training, in addition to the implementation of FSV (Output 2); and the promotion of community mobilization (Output 3). According to interviews with stakeholders at the project site, it can be judged that the combination of all the three outputs led to deepened understanding within communities, including among pregnant women, on the importance of maternal health services, which increased the number of women receiving ANC, PNC and skilled delivery (indicators of the project purpose). Concerning capacity development through training and promoting the newly developed tools, the project team actually visited the trainees' workplaces and monitored whether they actually applied the gained knowledge at the sites. One of the major reasons in which the outputs improved maternal health services, i.e., the project purpose, may be not only the trainees themselves but also their bosses and colleagues being sufficiently aware that this sort of monitoring would be conducted after the training.

¹⁴ At the time of the terminal evaluation, it was pointed out that there was significant room for improvement in terms of the quality of the DHIMS2 data, although its data collection was made from all of the medical facilities, including CHPS facilities. For example, 1. the reporting rate was low in some areas; 2. the definitions of some parameters were not clear, and understanding on the definitions differs among the staff, leading to inconsistency of data across the districts; and 3. the denominator of counting the ratio of ANC and safe delivery was the projected pregnancy rate, which was 4% of the total population across the country, for more than 15 years, which was pointed out to be overestimated (Terminal Evaluation Report P16).

¹⁵ JICA document

¹⁶ Questionnaire to the implementing agency

Project Purpose	Indicator					Achievement			Achievement Level	
	1	Proportion of clients receiving first trimester antenatal care is increased to 60%.					56.9% (DHIMS2 data) (→94.8% of the target value) (Reference : 77.5% by the Endline Survey data)			
1	2					?% (institutiona get value)	l delivery, DHIM	(\rightarrow 88.6% of the	High	
Improve maternal and neonatal health	3 is increased to 75% and second PNC within 7 days after				En	1st PNC: 93.4% (DHIMS2 data) (Reference: 77.5% by the Endline Survey data) 2nd PNC: 76.2% (The Endline Survey data. No DHIMS2			High	
(MNH) services utilising CHPS			observation sh	correct use of Partog neet for the first 6 hor f improve to 90%(cor	urs amongst applicable		e achievement	is shown below.	(unit: %)	
system in			Coverage	Correct Use	-		Coverage	Correct Use		
UWR. (High)	4	Partograph	90	80		Partograph	82	85	Medium	
		Postpartum Observation Sheet	90	80		Postpartum Observation Sheet	51	85		

Table 2 Achievement of Project Purpose by Project's Completion

Source: Project Completion Report P14-17

Remarks: The indication at the Achievement Level means as follows.

High (80% of or above the target level) Medium (50%~79%) Low(Less than 50%)

Additionally, concerning the influence of other projects on the achievement of the project purpose, many respondents indicated significant synergetic effects brought by "The Project for the Scaling up of CHPS Implementation in Upper West region" (Technical Cooperation) project, i.e., the Phase 1 project, in which core human resources were fostered, and the foundation for creating new mechanisms was laid, as well as "The Project for the Development of CHPS Infrastructure in Upper West Region" (Grant Aid), by which CHPS compounds were constructed¹⁷. It often takes a large amount of time for human resources development and institution building to achieve substantial improvement of health services. In this case, the foundation was laid by human resources development of core personnel and the creation of mechanisms during the Phase 1 project, and the Phase 2 project promoted its application in UW Region, in order to improve maternal health services. This sort of medium- or long-term approach contributed significantly to the project purpose being achieved. In addition, the grant aid project, together with this project and Japan Overseas Cooperation Volunteers (JOCV), constitutes a part of JICA's "Programme for Promoting Mother and Child Health Services on focusing on the UW Region." Through the above grant aid project, 64 CHPS compounds were constructed, and basic medical equipment and so on was provided for 75 sites, in parallel with this project¹⁸. Taking soft and hard approaches simultaneously led to the improvement of maternal health services, i.e., project purpose, such as increased ratios of women receiving ANC, PNC and skilled delivery. Additionally, the JOCVs who were assigned to some of the health centres (HCs) helped to improve health services by

¹⁷ Questionnaire to and interview of the implementing agency

¹⁸ JICA document

supporting medical workers at HCs and CHPS facilities in ANC, PNC and delivery¹⁹. For these reasons, this programme is regarded as a good practice of the JICA programme that functioned well.

As stated above, the project achieved its purpose. The achievement of each output, specifically the implementation of the Phase 1 project, the grant aid project and JOCV, which were closely linked to this project as JICA programmes, functioned in a coordinated fashion and contributed to achieving the project purpose.

3.2.2 Impact

3.2.2.1 Achievement of Overall Goal

The achievement status of the overall goal at the time of the ex-post evaluation is shown in Table 3. Although the target values of the overall goal indicators were set to be achieved by 2020, the latest data for the ex-post evaluation were from 2018. Based on that data, and judging achievement of 80% or more of the target value as being "almost achieved", Indicator 3 was achieved, Indicators 2 and 4 were almost achieved, and Indicator 1 was partially achieved. Hence, the achievement of the overall goal is judged high.

Furthermore, Indicator 1, which remained partially achieved, was 63.2% of the overall goal indicator for 2016, which increased to 70% in 2018, representing a 6.8% increase in 2 years. If it increases at the same rate from 2018 to 2020, the probability of achieving the target will be low because the indicator is expected to be 76.8%.

Overall Goal Indicator		Indicator	Target Value (2020)	Actual Value at the project completion (2015)	Ratio of Actual Value in 2016 to Target Value (%)	Actual Value at the Ex-post Evaluation (2018)	Ratio of Actual Value in 2018 to Target Value (%)
	1	Proportion of clients receiving first trimester ANC	90	56.9	63.2	63	70
MNH services in	2	Proportion of clients receiving skilled delivery in UW Region	85	62	72.9	68.7	80.8
UW Region is continuously improved.	3	Proportion of clients receiving first PNC within 48 hours and second PNC within 7 days after delivery is increased to 75%		1st: 93.4 2nd: 76.2	1st: 98.3 2nd: 80.2	95.9	100.9
	4	Still birth rate is decreased to 12 (/1,000 births).	12	15.8 (2015)	61.7	13.3	90.2

Table 3 Achievement of Overall Goal at the time of the Ex-post Evaluation

Source: Project Completion Report, Questionnaire to Implementing Organizations

It was pointed out that Indicator 1's achievement remained medium due to cultural aspects (such as mothers-in-law and family heads wanting delivery by traditional birth attendant, disclosure of pregnancy at an early stage is believed to bring ill fortune,

¹⁹ Questionnaire and interview to implementing organizations

and so on)²⁰. Furthermore, the overall goal was reached thanks to the synergetic effect with other donors' support, in addition to the continuation of outputs and the project purposes after the project's completion, which will be explained in the next section. Support provided by other donors after project completion contributed to sustention and improvement of maternal health services in the UW Region. Donor programmes included UNICEF's "Home-based Care for Maternal and New-born care Project", which conducted training of CHOs for improving home-based MNH care; Plan International Ghana's "Health Quality Improvement for Maternal, Neonatal and Child Health in the Upper West Region" (2017-2018); and USAID's "Maternal and Child Survival Program" (2016-2018), which provided support on FSV, training of CHOs and community mobilization.

3.2.2.2 Continuation of Outputs and Project Purpose after Project Completion

The continuation status of outputs after the project completion until the time of the ex-post evaluation is shown in Tables 4–6. The effects have been sustained at certain levels by continued activities after project completion. However, the cost for these activities was borne by the other donors' and JICA's subsequent projects (see 3.2.2.3 for details). As for the project purpose, as explained in the Effectiveness section, its indicators are the same as those of the overall goal except for Indicator 4, due to the irregular setting of the PDM of this project. The achievement of Indicator 4 (coverage and correct use of partograph and postpartum observation sheet) is shown in Table 7.

	Indicator	Status
1-1	Number of trainee completed CHO fresher training	 Out of 1,263 CHOs who received training by the project (CHO fresher training: 917, CHO refresher training: 346), 382 CHOs are functioning at the time of the ex-post evaluation, although no tracing record exists about the trainees.
1-2	Number of trainee completed CHO refresher on CHOs at CHPS for ANC, emergency deliveries and PNC training	 As a result of the exit strategy of the project, CHO fresher training has been integrated into the curriculum of training colleges for community health nurses and midwives and implemented since 2015. Hence, the training has not been conducted since then by the implementing organization.
1-3	Number of trainee completed safe motherhood training (SDHT)	- Safe Motherhood/Life Saving Skills Training were conducted for 106 midwives (2017)
1-4	Medical equipment is delivered to SDHT	 Medical equipment related to midwives was delivered to all the hospitals and HC (SDHT) (2018) The provided equipment is mostly utilized at the time of the ex-post evaluation. However, the staff at some facilities could not distinguish which equipment was provided by the project.
1-5	Tutors of the training schools of health workers are trained to conduct the theory session of the CHO fresher training	 8 tutors were trained on the theory part of the training (Community Health Nursing Training College) Principal and tutors at other schools were trained. The developed IEC materials were still utilized at the training schools for nurses and midwives at the time of the ex-post evaluation.

Table 4 Status of Output 1 (Capacity Building) after Project Completion

Source: Questionnaire and Interview to Implementing Organisations, observation at the sites and interview with Jirapa Community Health Nursing Training College

²⁰ Questionnaire to implementing organizations

Table 5 Status of Output 2 (Institution I	Building) after Project Completion
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	Indicator	Status				
2-1	Referral/counter-referral is Enhanced.					
2-1-1	Number of trainee completed referral/counter- referral training (CHO SDHT in charge, Hospital)	 - 334 trained (2019) - 56 CHNs and HC staff trained on Pre-hospital emergency care and referral 				
2-1-2	Implementation rate of using the revised tools and methods	- Standard referral tool (including referral form, feedback form, and so on) are utilised at all the hospitals, HC, and CHPS				
2-2	FSV is strengthened.					
2-2-1	Number of trainee completed FSV training	- Capacity development on FSV is done on OJT basis, in which all the new staff are trained in the actual FSV to understand the tool and process.				
2-2-2	implementation rate of monitoring using the revised tools and methods of FSV (FSV by RHMT over DHMTs, FSV by DHMT over SDHTs, FSV by SDHT over CHOs)	Actual status between 2016-2018 is as follows. - FSV by RHMT over DHMTs: 100% (twice a year) - FSV by DHMT over SDHTs: 80% - FSV by SDHT over CHOs: 60% The speed of disseminating FSV is currently slowing down due to standardization of Supportive Supervision (SS) , which put more emphasis on clinical aspect than management aspect although both are in complementary relationship.				
2-3	Maternal and Neonatal Death Audit (MNDA) is strengthened.					
2-3-1	Training of regional MNDA team and zonal MNDA teams	- Training of regional MNDA team conducted - Training on new staff done on OJT basis				
2-3-2	Follow up by the regional and zonal MNDA team	 Follow up meeting held every 2 years All the cases were audited in 2017 and 2018 				

Source: Questionnaire and Interview to Implementing Organizations

Table 6 Status of Output 3 (Community Mobilization) after Project Completion

	Indicator	Status
3-1	CHOs are trained on Community Mobilization.	- 61 trained in 2018 - 36 trained in 2019 (97 in total)
3-1-1	By 2015, target number of trainee completed CHO refresher training on Community mobilization is achieved. CHO:341	- 382 trained
3-1-2	By 2015, number of CHPS zones with Annually Updated Community Health Action Plan (CHAP) is increased to 80.	- 282 CHPS out of 296 CHPS Zones updated CHAP as of the 3rd quarter of 2019
3-2-1	By 2015, local IEC materials for community promotion are developed.	 - IEC materials for CHPS zone, HC, hospitals were developed and disseminated. - Some CHPS were utilising the IEC materials developed by the project when the expost evaluation team visited.
3-2-2	By 2015, target number of trainee completed CHO refresher training on MNH service promotion utilizing local IEC materials is achieved. CHO:341	- 382 trained

Source: Questionnaire and Interview to Implementing Organizations and site visit

Table 7 Status of Indicator 4 of Project Purpose after Project Completion

						(unit : %)
	Target	Value	Actual Va	lue (2016)	Ex-post Evaluation	
	Coverage Correct Use		Coverage	Correct Use	Coverage	Correct Use
Partograph	90	80	82	85	77	61
Postpartum Observation Sheet	90	80	51	85	46	70

Source: Project Completion Report, Sample Survey at the hospitals and HC at the ex-post evaluation

The actual values of partograph coverage and the correct use of the postpartum observation sheet share 85% or more of the target values. 50% and above and less than 80% correctly used partographs and the postpartum observation sheet. All of these figures were lower than the actual values at the project's completion. As for the causes of the achievement status, some comments were made at the project sites that the forms sometimes ran out of stock because of printing delays.²¹ Printing of forms was expected to be done at the central level (Ministry of Health, hereinafter referred to as MOH), so that HC and CHPS could purchase the forms. On this point, the MOH responded that the reason for the delay in printing was a shortage of budget for reprinting, and the system would be changed so that the printing cost would be borne by the District Assembly (hereinafter referred to as DA). This was agreed on through discussion between MOH and the Ministry of Local Government and Rural Government. According to MOH, the shortage will be solved in the near future, as health facilities including CHPS will be able to utilize internally generated funds²² (hereinafter referred to as IFG) to partially cover the printing cost. In addition, the shortage would be minimized if the IFG status is improved.²³ However, it is still necessary to monitor future progress.

In addition, the shortage of forms includes maternal and child health handbooks.²⁴ The PNC stamp, which has been promoted as a part of Output 2, is to secure space to indicate the expected date and place of PNC on maternal and child health handbooks. The aim was to promote PNC from delivery facilities to lower level health facilities, including CHPS. The measures to be taken by MOH were the same as the above.

Based on the above, the project has achieved its overall goal. The activities for achieving the outputs have continued after the project's completion, and leading to achievement of the overall goal in combination with other donors' support. According to GHS HQ, UW Region has become one of the most advanced areas where implementation of CHPS is advanced in Ghana thanks to the project.²⁵

²¹ Interview of those who are concerned

²² IFG is revenue for health service providers from cash and carry and health insurance. It is a major financial source which can be utilized in health sector budgets in addition to government funds, Heavily Indebted Poor Countries Fund and donors' fund (donor-pooled fund: PDF, donor earmark fund and credit. (Republic of Ghana, "Basic Design Survey Report, Project for the Development of CHPS Infrastructure in the Upper West Region" P13-14)

²³ Questionnaire to MOH

²⁴ Interview to implementing organizations

²⁵ Questionnaire to implementing organizations

3.2.2.3 Other Positive and Negative Impacts

Neither resettlement nor land acquisition occurred during project implementation. No impact on the environment was observed, either. As for indirect effects, no negative impact was observed. The reduction of maternal mortality ratio and neonatal mortality rate, which were set as indicators of the super goal (improvement of MNH status) are shown in Table 8.

	2010	2012	2014	2016	2018
Maternal Mortality Ratio (per 100,000 births)	212.0	182.0	161.1	118.6	96.4
Neonatal Mortality Rate (per 1,000 births)	7.8	6.9	5.1	3.7	6.1

Table 8 Maternal Mortality Ratio and Neonatal Mortality Rate in UW Region

Source: Questionnaire to Implementing Organization

The maternal mortality ratio drastically decreased compared with the planning stage. On the other hand, it is hard to say there was a specific tendency in the neonatal mortality rate. Three points contributed to the reduction of the maternal mortality ratio: 1) the increase of CHOs and CHPS, compounded by the grant aid programme, broadened the area where health services are received, which improved users' access; 2) capacity development training for CHOs, midwives and other health workers led to improvement of quality in health services (the project purpose); and 3) CHOs' community dissemination activities on maternal health activated community health activities.²⁶ Furthermore, the technical cooperation project succeeding this project, "Project for Strengthening Community based Health Services focusing on the Life-Course Approach in the three Northern Regions" (2017-2022) has continued to strengthen CHOs' capabilities, and the health management teams at sub-district, district and regional levels on planning and implementing CHPS as well as on strengthening community activities of CHPS in the three northern regions, including UW Region. Based on the achievements of the Phase 2 project, the successor project aims at improving health status throughout the whole life cycle including pregnancy and delivery. Some community health activities promoted by this project such as a community emergency transport system (hereinafter referred to as CETS), CHAP and so on are continuously conducted.²⁷ The project has helped to improve the maternal mortality ratio in UW Region directly or otherwise.

Interviews were conducted with eight women who utilize or used to utilize MNH

 ²⁶ Project Completion Report (P11)
 ²⁷ Questionnaire to implementing organizations

services at CHPS in Wa Municipality. Among them, five women knew the services both before and after the project. Out of the five women, four women responded that the quality of ANC, PNC and skilled delivery were improved compared with before the project, which led to improving health status of mothers and new-born babies. One woman responded the service was unchanged. More specifically, among four women who mentioned improvement, two pointed out improvement of mother's health status after delivery, and two women mentioned improvement of mother's health status, two women recognized the health status of new-born babies as the effects of the improved health services (multiple answers). Some women also pointed out that women' knowledge was improved through ANC and early detection of dangerous signs by skilled delivery personnel, which leads to improved safety. These are considered to have helped to improve health status. Although it cannot be said that this represents the whole tendency due to small sample size, it is assumed that a certain number of mothers recognize that improvement of health services by this project led to improvement of MNH status.

Based on the above, this project has achieved the project purpose of improving MNH services. The effects of the overall goal are confirmed and planned effects are observed. The outputs have been confirmed as sustained after project completion and until the ex-post evaluation, and this is considered to have led to sustention of the project purpose. As for other impacts, the project helped to improve maternal mortality ratio to some extent, in combination with the sustained outputs and project purpose and effects by other projects. Therefore, effectiveness and impact of the project are high.

3.3 Efficiency (Rating: 2)

3.3.1 Inputs

The project's planned and actual inputs at the time of the ex-post evaluation are shown in Table 9.

Inputs	Plan	Actual	
		(at Project Completion)	
(1) Experts	203.33 M/M	204.04 M/M (25 persons)	
(2) Trainees received	No specific description	21 persons	
		(country-focused training in	
		Japan 6,	
		country-focused/thematic	
		training 6, group training	
		course 8, Training Program for	
		Young Leaders 1)	
(3) Equipment	No specific description on	Equipment for the project	
	budget amount	office and training (PC,	
		photocopy machine, cabinets,	
		chairs, generators, flip chart	
		stand), car (4WD), etc.	
(4) Local cost	No specific description on	305 million yen	
	budget amount	505 million yen	
Japanese Side	893 million yen	1,100 million yen in total	
Total Project Cost	675 minon yen		
Ghanaian Side	Salaries of counterpart staff,	Salaries of counterpart staff,	
Total Project Cost	facility and land, electricity,	facility and land, electricity,	
	water, etc.	water, etc.	

Table 9 Planned and Actual Inputs

Source: Ex-ante Evaluation Summary Sheet, Project Completion Report, JICA documents Remarks: MM stands for man-month.

3.3.1.1 Elements of Inputs

No particular problems were noted regarding training in Japan or equipment provision. At the time of the field visit, two participants stated that the training in Japan was extremely effective for conducting the work. Both of them have played important roles and contributed to sustaining project effects, playing important roles in the project.

As for the dispatch of Japanese experts, frequent replacement and short length of

stays increased project cost and delayed progress. More specifically, every time the Japanese experts were replaced, it took time for their successors to comprehend the project contents. In addition, decision-making and activities were sometimes delayed because the Japanese experts were out of Ghana when their participation in discussions or decision-making was indispensable. In addition to increased cost and delay, the Japanese experts and their Ghanaian counterparts could not share sufficient time for thorough appraisal and support due to short duration of stays.²⁸ Thus, the negative influence of the Japanese experts' frequent replacement and short duration of stay is regarded as significant.²⁹ Information on the causes which brought frequent replacement and short stays could not be collected sufficiently, since many of the key Japanese experts had already retired or quit at the time of the project completion.

On the other hand, the fields and quality of the Japanese experts were appropriate,³⁰ the implementing organization has pointed out that they played important roles in achieving the outputs with rational approaches. The close collaboration and coordination they demonstrated significantly contributed to the project's success.³¹ For these reasons, dispatch of the Japanese experts is regarded to have contributed to achievement of the outputs.

Regarding the actual inputs from the Ghanaian side, personnel expenditure of the counterparts, arrangement of facilities and land, cost for electricity and water and so on were covered as planned.

3.3.1.2 Project Cost

The actual cost born by Japanese side was 1,100 million yen (123% compared with the plan), which was higher than planned.

3.3.1.3 Project Period

The project period was five years and one month, i.e., 102% compared with the plan, which was slightly longer than planned.

As stated above, both the project cost and project period exceeded the plan. Frequent replacement and short stays of the Japanese experts are regarded as a part of the cause for the increase in project cost and delay in project progress. On the other hand, dispatch of the experts is considered to have contributed to achieving the outputs. Therefore, efficiency of the project is fair.

²⁸ Questionnaire to implementing organizations

²⁹ Questionnaire to implementing organizations

³⁰ Questionnaire to implementing organizations

³¹ Questionnaire to implementing organizations

3.4 Sustainability (Rating: 2)

3.4.1 Policy and Political Commitment for the Sustainability of Project Effects

The CHPS policy revised in March 2016 is still valid at the time of the ex-post evaluation. The direction to promote CHPS is maintained, and reduction of disparities in access to health services is still pursued for attaining universal health coverage by 2030.³² The decentralization expected before the project's completion has not progressed as expected, but the DAs and the district health administration collaborate well, coping with problem-solving together in a coordinated manner according to the interviews of DA staff at five districts³³ at the time of the ex-post evaluation. Further, the joint monitoring system developed during the project is still in place.³⁴ Hence, sustainability in terms of policy and political commitment is high.

3.4.2 Institutional/Organizational Aspects for the Sustainability of Project Effects

At RHMT, which played a core role in the project, almost the same number of staff have been allocated from the project commencement until the ex-post evaluation (6 administrative staff, 2 technical staff, 1 clerical staff, 9 staff members in total). Sub-District Health Team (hereinafter referred to as SDHT) members basically play double roles; as a health worker onsite at HCs and as an administrator. At HC, almost no administration officer was allocated, but no serious problem arose because clerical tasks such as accounting are basically taken care of by the regional level.³⁵ In addition, the project proposed to have CHO refresher training, which costs much, to be integrated into the training schools' formal education of nurses and midwives as the project's exit strategy. As a result, the training was integrated into the national curriculum as of 2015.³⁶ At the time of the ex-post evaluation, the education is provided at the training schools according to the curriculum, and includes the project's refresher training content for CHOs. Delays in recruitment/allocation of CHOs required new implementation of CHO refresher training. It was decided that the Phase 3 project will support this.

DAs maintain favourable relationships with district-level offices of the ministries including DHMT, hold meetings when needed and discuss activity plans and district monitoring. The joint monitoring system developed by the project is still functioning at the time of the ex-post evaluation.³⁷ Concerning partograph forms and mother and child

³² National Community-Based Health Planning and Services Policy–Accelerating Attainment of Universal Health Coverage and Bridging the Access Inequity Gap (P22)

³³ The five districts were Wa, Wa East, Nadowli, Jirapa and Sisala East

³⁴ Interview to DAs

³⁵ Interview to implementing organizations

³⁶ Questionnaire and interview to implementing organizations

³⁷ Interview to DAs

health books (the shortage of which was confirmed at the time of the ex-post evaluation), DAs will be responsible for bearing the printing cost. Even if there is a problem in the future, discussion and taking measures in collaboration between DHMT and DAs may be possible as needed, because the collaborative relationship between DHMT and DAs has been maintained. Thus, institutional/organizational sustainability is high.

3.4.3 Technical Aspect for the Sustainability of Project Effects

With regards to the technical aspect of CHOs, midwives and staff at RHMT, DHMT and SDHT, who were engaged with and fostered by the project, on-site interviews were conducted at higher and lower levels. All the responses indicated no problems.³⁸ In addition, trainers among those concerned with the project in the country have already been fostered. Hence, their technical capacity is assessed as high.

Additionally, FSV, which is a part of Output 2, has been functioning well after project completion³⁹ in supporting problem-solving during the implementation process among the levels of the region, districts, sub-districts, and CHPS, and contributing to improvement of maternal health services. On the other hand, GHS decided to introduce supportive supervision (hereinafter referred to SS) from 2020 all over the country, instead of FSV.⁴⁰ Although there are many common characteristics between SS and FSV, SS is said to put more emphasis on technical aspect rather than administrative aspect. It may take time for its influence to be clearly known.

3.4.4 Financial Aspect for the Sustainability of Project Effects

At the terminal evaluation, it was pointed out that there were financial problems at all levels, that the budget was limited especially at the regional level, and that securing budget was necessary for FSV and follow-up of MNDA. On the other hand, although the budget for the district level was also limited, the possibility to continue major training was assessed as high.⁴¹ At the time of the ex-post evaluation, although the budget for MNDA is in shortage, its activities have continued: MNDA meetings are held at each health facility and so on.⁴² According to the implementing organizations, efforts have been made to apply for donors' support and for district-level financial resources in collaboration with DAs. Although the budget is not sufficient for continuing the activities, those efforts have been continued for sustention of the activities.⁴³ The cost for the training conducted after the project's completion was not borne by the Regional Health

³⁸ Questionnaire and interviews to implementing organizations

³⁹ Interview to implementing organizations

⁴⁰ Questionnaire to implementing organizations

⁴¹ Summary sheet, Terminal Evaluation Report (P vi)

⁴² Interview to implementing organizations

⁴³ Questionnaire to Implementing Organizations

Administration, but by the other donors and the Phase 3 project, although the information on the cost breakdown was not available. Financial sustainability regarding training is high because of donors, but low for the implementing organization.

The budget of GHS is shown in Table 10, although the financial information of the Regional Health Administration was not available. Both revenues and expenditures have been fluctuating, and it is difficult to extract a clear tendency.

Table 10 Actual Budget for GHS

				(unit: Ghanaian cedi)
	2016	2017	2018	2019
Revenue	1,574,895,259	1,477,230,721	2,176,097,379	2,588,846,671
Expenditure	1,495,912,199	1,479,147,982	2,188,785,019	2,527,061,627
Balance	78,983,060	-1,917,261	-12,687,640	61,785,043
a gua				

Source: GHS

Based on the above, some minor problems have been observed in terms of the financial aspect. Therefore, sustainability of the project effects is fair.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

This project was implemented to improve maternal and neonatal health services through capacity development, institution building and enhancement of community participation and its supporting system in UW Region. The direction of the project, which is aimed at improving maternal and neonatal health MNH services by utilizing CHPS through CHO, sufficiently corresponds with Ghana's development policies and development needs as well as with Japanese aid policy. Thus, relevance of the project is high. The achievement of outputs, human resources development, institution building and community mobilisation by the project completion is high, and the project purpose of improving maternal and neonatal health services was achieved. At the time of the ex-post evaluation, the overall goal was achieved, and other positive impacts such as contribution to improvement of maternal mortality ratio is observed. Thus, the project's effectiveness and impact are high. The project costs exceeded the plan and the project period slightly exceeded the plan. Therefore, the project has fair efficiency. Some minor problems have been observed in terms of financial aspect. Therefore, the sustainability of the project's effects is fair. In light of the above, this project is evaluated to be satisfactory.

4.2 Recommendations

4.2.1 Recommendations to the Implementing Agency

It is desired that DHMTs at UW Region continue to regularly monitor the situation at sub-district and CHPS levels on the reprinting of partograph forms, postpartum observation sheets and mother and child health handbooks to avoid a situation in which recording information is not possible due to a shortage of forms. When necessary, DHMTs are required to try to solve a problem in collaboration with DAs. RHMT is asked to continuously receive regular reporting on monitoring results from DHMTs. When improvement of the situation is difficult, it should try to solve a problem with the support of GHS headquarters.

4.2.2 Recommendations to JICA

None.

4.3 Lessons Learned

On-site monitoring and recognition-sharing for enhanced training effect

In this project, wide varieties of training were conducted to varieties of people related to all project outputs. Counterparts at the project sites strongly recognized that "JICA would come to the site after the training to confirm whether the trainees actually utilize the knowledge they gained at the training." Because of this recognition, the training did not remain just a learning opportunity or acquisition of knowledge and techniques, but it substantially contributed to improving performance at the project sites. In some technical cooperation projects, a wide variety of training is conducted, and the trainees' application of knowledge or skills gained through the training onto their works is essential for achieving the project purpose. In this type of project, it is important for the project team to 1) conduct on-site monitoring, i.e., visiting the working place for actually observing the utilization status of knowledge, instead of just compiling the data and reports received from those who are concerned, 2) to disseminate the information to the trainees and their bosses and so on before starting the training concerning with the expected implementation of the on-site monitoring, and 3) to create a feedback mechanism for sharing the monitoring results.

Programme formulation to enhance effects of JICA projects/programmes

This project is positioned as a part of JICA's "Programme for Promoting Mother and Child Health Services focusing on the UW Region" (2011–2016). As a part of the reasons why the effectiveness and impact of this project are high, it was frequently pointed out at the time of the ex-post evaluation that the construction of CHPS compounds by the grant aid project and contribution of JOCV to improving health services- which were also constituents of the above programme - as some of the contributing factors for success. These are regarded as the results of planning those projects under the common purpose of a JICA programme at the planning stage. The above programme basically followed its previous programme, i.e., "Program for the Improvement of Health Status of People Living in Upper West Region" (2005–2009), which was formulated during the period when JICA modified its definition on JICA programme from "a set of projects (or individual projects) that are formulated and implemented under loosely connected common goals and targets" to "strategic framework to support achievement of specific medium/long-term development objectives of developing countries" and shifted to increase strategic programmes. According to a JICA staff member who was part of the programme, JICA's Ghana office used to have programme mindset from the stage of the official request. Furthermore, three divisions in charge of abovementioned three schemes jointly conducted onsite preliminary surveys, which also seems to have improved the quality of the programme. In planning a technical cooperation project, for which support of construction of infrastructure or JOCV dispatch for detailed assistance to local government are beneficial, it is important to have a programme mindset, clarify a programme objective and formulate a programme. Then, JICA can plan projects based on them instead of formulating a single project or combining multiple projects after planning.