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Package III-6 (Nigeria, Ghana)

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Federal Republic of Nigeria

FY2019 Ex-Post Evaluation of Japanese ODA Loan Project

“Polio Eradication Project”

External Evaluator: Eriko Yamashita, Value Frontier Co., Ltd.

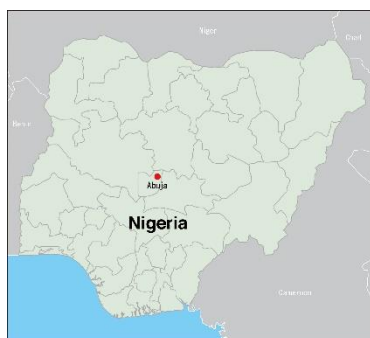
0. Summary

The objective of the “Polio¹ Eradication Project” (hereinafter referred as “the Project”) was to optimize administration of the polio vaccine to children under five years, by procuring oral polio vaccines (OPV) necessary to implement polio immunization campaigns (hereinafter referred as “Campaign/s”) in 2014 and 2015, thereby contributing to the early eradication of polio in the whole country. Nigeria was one of the three polio-endemic countries at the time of appraisal, and the international community had positioned Nigeria as the most prioritized country for polio eradication. Polio eradication was also positioned as an emergency and a priority issue by the Federal Government of Nigeria (FGN), and the Project is consistent with the national development plans and the development needs. Furthermore, the Project was consistent with Japan’s Official Development Assistance (ODA) policies that have demonstrated strong commitment toward the health sector in the international arena. Therefore, its relevance is high. The Project cost was within the plan and the Project period was as planned and accordingly the efficiency is high. All of the operation and effect indicators set up for the Project were achieved, including immunization coverage. Consequently, impact was confirmed in the controlled number of wild poliovirus (WPV) cases after 2014, and no case of WPV has been reported since 2017. Therefore, effectiveness and impacts are high. Regarding sustainability, there are no major issues in the implementation of the Campaigns in the institutional/organizational, technical, and financial aspects: the Campaigns are implemented in accordance with the plan. Meanwhile, future polio eradication activities are planned for integration into the routine immunization (hereinafter referred as to “RI”) framework. The institutional framework of RI is not yet well established, and detailed activities to implement the transition plan are under discussion at the time of ex-post evaluation, hence there is uncertainty in institutional/organizational, technical, and financial aspects of the transition plan implementation. Therefore, sustainability is fair.

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

¹ Polio (poliomyelitis) is a communicable disease and can infect a person’s spinal cord, causing paralysis of the limbs. The poliovirus enters the body through the mouth; it spreads from person to person mainly through the fecal-oral route. The global polio epidemic has been caused by WPV. It is a vaccine-preventable disease and on the verge of being eradicated worldwide, after smallpox. At the time of appraisal (2014), Nigeria, Afghanistan, and Pakistan were the remaining three polio-endemic countries in the world. OPV are recommended to prevent polio in the polio-endemic countries, but in rare circumstances, they can induce spontaneous mutation of the strain contained within OPV to generate the circulating vaccine-derived poliovirus. (This is the evaluator’s edition, based on published medical documents and sources including websites of Japan’s National Institute of Infectious Diseases, the Global Polio Eradication Initiative, and Rotary International.)

1. Project Description



Project Location



Polio Gwoza

(Photo Source/Credit to *UNICEF Nigeria/2016*)

1.1 Background

Statistics show that the number of reported polio infections globally decreased 99% from 1988 to 2012, with complete eradication a step away. At the time of appraisal, Nigeria, as one of the remaining three “polio-endemic countries” in the world, was given the highest priority in respect of polio eradication activities on a global scale. Under the Global Polio Eradication Initiative (GPEI), in addition to RIs, Nigeria had been implementing Campaigns, also called Supplementary Immunization Activities, six to eight times a year on a national or sub-national level depending on the situation, targeting children aged under five. However, it had not been able to ensure financial support from international donors for the procurement of polio vaccines that were necessary to implement the Campaigns in 2014 and 2015, specifically for the vaccines necessary for the Campaigns after May 2014. Thus, there was a huge concern over the continued implementation of Campaigns.

1.2 Project Outline

The objective of the Project was to optimize administration of the polio vaccine to children under five years, by providing a loan for procuring polio vaccines necessary to implement the Campaigns in 2014 and 2015, thereby contributing to the early eradication of polio in the whole country.

<ODA Loan Project>

Loan Approved Amount/ Disbursed Amount	8,285 million yen / 8,269 million yen						
Exchange of Notes Date/ Loan Agreement Signing Date	May 2014 / May 2014						
Terms and Conditions	<table> <tr> <td>Interest Rate</td> <td>0.2%</td> </tr> <tr> <td>Repayment Period (Grace Period</td> <td>20 years 6 years)</td> </tr> <tr> <td>Conditions for</td> <td>General Untied</td> </tr> </table>	Interest Rate	0.2%	Repayment Period (Grace Period	20 years 6 years)	Conditions for	General Untied
Interest Rate	0.2%						
Repayment Period (Grace Period	20 years 6 years)						
Conditions for	General Untied						

	Procurement
Borrower / Executing Agency	Federal Republic of Nigeria / National Primary Health Care Development Agency (NPHCDA)
Project Completion	December 2015
Target Area	Whole country
Main Contractor(s) (Over 1 billion yen)	(Direct Contract for Procurement) United Nations Children’s Fund (UNICEF)
Main Consultant(s) (Over 100 million yen)	Not available
Related Studies (Feasibility Studies, etc.)	Not available
Related Projects	Technical Assistance Project Related to ODA Loan “Laboratory Equipment Maintenance Training” (2015), Grant Project “Project for Infectious Diseases Prevention for Children” (2000), Technical Training in Japan (“The Knowledge Co-Creation Programme”) “Laboratory Diagnosis Techniques for the Control of Vaccine Preventable Diseases, including Poliomyelitis and Measles” (2007–): Global Polio Eradication Initiative: The World Bank (WB) “Partnership for Polio Eradication” (2003), “Polio Eradication Support” (2012), “Polio Eradication Support: additional financing” (2018)

2. Outline of the Evaluation Study

2.1 External Evaluator

Eriko Yamashita, Value Frontier Co., Ltd.

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 21, 2019

2.3 Constraints during the Evaluation Study

The evaluator faced mobility restrictions in Nigeria following Japan International Cooperation Agency’s (JICA’s) local safety regulations, and hence, it was planned that the beneficiary survey would be conducted by the local consultant after the evaluator’s first field study that ended on December 21, 2019. However, that proved to be impossible due to an outbreak of Lassa fever in the country in January 2020. Consequently, it was not possible to collect information and analyze the Project impacts on beneficiaries, for the section “Other impacts.” Furthermore, the evaluator’s

second field study, scheduled for March 2020, was cancelled due to the COVID-19 pandemic, which also limited the local consultant's mobility due to the lockdown measures in the country's capital. As a result, discussions with the executing agency were conducted mainly in writing.

3. Results of the Evaluation (Overall Rating: A²)

3.1 Relevance (Rating: ③³)

3.1.1 Consistency with the Development Plan of Nigeria

At the time of appraisal (2014), prioritized areas under the national development plan, *Nigeria Vision 20: 2020 (2009–2020)*, embraced reduction in communicable diseases including polio to guarantee the well-being and productivity of the people. In particular, polio was made into one of the most prioritized issues of the country—the *Nigeria Polio Eradication Emergency Plan* has been elaborated every year 2011 onward, with the aim of interrupting WPV transmission by 2015.

At the time of ex-post evaluation, in addition to the above-mentioned national development plan, the *Economic Recovery and Growth Plan (2017–2020)* is also in effect, and it upholds ramping up of projects to eradicate polio, measles, and yellow fever as one of the main Programmes in the health sector. Additionally, the *National Action Plan for Health Security 2018–2022* underlines the importance of the role of polio resources, and that the capacities and assets developed through polio eradication efforts in coordination with international donors should be leveraged to ensure development of sustainable capacity for communicable diseases in general. The *Nigeria Polio Eradication Emergency Plan (2019)* emphasizes the importance of sustaining polio eradication activities.

3.1.2 Consistency with the Development Needs of Nigeria

At the time of appraisal, Nigeria was one of the three polio-endemic countries in the world with continuous transmission of WPV, and was positioned as the prioritized country for polio eradication activities by the international community. Despite a trend of decrease until 2009, the number of WPV cases in Nigeria increased after 2010; in 2012, 122 WPV cases were reported, which accounted for approximately half of all the cases worldwide. It was considered that the increase in the number of WPV cases in 2012 was because the implementation of Campaigns became difficult in the north-eastern region due to the deteriorating safety situation there, especially in the three states of Borno, Yobe, and Kano. Moreover, a devastating flood in 2012 caused large-scale population migration. All this contributed to the spread of infections; hence, intensifying Campaign strategies for the north-eastern region, with a special focus on the three

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

³ ③: High, ②: Fair, ①: Low

states, was necessary, besides ensuring the Campaigns' implementation with continuous quality improvement. However, Nigeria had not been able to obtain funds from international donors to meet the financial requirement for procuring the polio vaccines necessary for the Campaigns after May 2014 thus putting a critical risk over their continued implementation of Campaigns.

At the time of ex-post evaluation, WPV has not been reported after the last case in August 2016. The African Regional Certification Commission (ARCC) of the World Health Organization (WHO) granted Nigeria polio-free⁴ status in June 2020 and declared in August 2020 that the WHO African Region is free of WPV. On the other hand, circulating vaccine-derived poliovirus (cVDPV) cases have been continuously reported—34 cVDPV cases in 2018 and 18 cVDPV cases in 2019. This implies that areas with insufficient immunization coverage of polio vaccines, or possibly areas with insufficient immunity obtained, still remain; therefore, it is necessary to continuously aim high immunization coverage of polio.

3.1.3 Consistency with Japan's ODA Policy

At the time of appraisal, Japan had continually shown a strong commitment toward the health sector in the international arena. At the United Nations Summit on the Millennium Development Goals held in September 2010, Japan announced its contribution of USD five billion to support the health sector. The Project came under Japan's Assistance Package for Africa, "Financial Support of 50 Billion Yen to the Health Sector," included in the category "V. Creating an Inclusive Society for Growth," in the *Yokohama Action Plan 2013–2017*, adopted by the Fifth Tokyo International Conference on African Development (TICAD V) held in 2013. The *ODA Charter (2003)*, as the policy at the time of appraisal, asserted that Japan would give high priority to providing assistance to the healthcare sector under one of the priority issues, "Poverty Reduction." The *ODA mid-term policies (2004)* also emphasized the importance of assistance to improve health services and addressing infectious diseases as an important perspective of human security and as an approach to poverty reduction. The *Country Assistance Policy for Nigeria (2012)*, under the pillar of "Poverty reduction and regional development," stated that it would assist in improving health and medical systems, including eradication of polio, whose incidence was mainly found in the northern area. In the *Rolling Plan for Nigeria (2012)*, a priority area of "achievement of growth that will benefit the entire population" included assisting Nigeria's polio eradication efforts in collaboration with international donors in the country.

Thus, this Project has been highly relevant to Nigeria's development plans and development needs, as well as Japan's ODA policy. Therefore, its relevance is high.

⁴ In addition to the presence of high-quality, certification-standard surveillance and the containment of all WPV stocks in laboratories, the country needs to be rid of WPV for a period of at least three years to be certified polio-free. The cVDPV cases do not affect the certification process.

3.2 Efficiency (Rating: ③)

3.2.1 Project Outputs

The planned output of the Project at the time of appraisal was procurement of polio vaccines necessary for the Campaigns planned for 2014 and 2015 (9 Campaigns in 2014 and 7 Campaigns in 2015)—the plan was to procure a total of 676 million doses, of which the Project's yen loan would finance approximately 476 million doses necessary for the Campaigns after May 2014⁵.

As actual output, 451 million doses⁶ of polio vaccines were procured through the yen loan for the Campaigns implemented in 2014 and 2015 (9 Campaigns in 2014 and 8 Campaigns in 2015). In the appraisal plan, procurement of polio vaccines utilizing the yen loan was planned to support the Campaign in July 2014 and all the subsequent Campaigns in 2014 and 2015. However, based on the actual situation of the WB loan utilization and periodic revision of the Campaign plan, the yen loan actually financed the polio vaccines procurement for the Campaign in December 2014 and onward. This resulted in a loan surplus—in September 2015, JICA approved utilization of the yen loan surplus for polio vaccine procurement necessary for any Campaign in and after 2016. Consequently, after the completion of the Project in December 2015, approximately 12 million additional doses of polio vaccines were procured with the remaining yen loan for the Campaigns implemented during 2016 and 2017. Hence, the total number of polio vaccines procured with the yen loan is 463 million doses (97.2% of the planned). The reduction in the total number of polio vaccine doses procured is mainly due to adjustment made in accordance with the periodically revised Campaign plan during 2014 and 2015, which did not affect achievement of the Project objective to provide with the fund for vaccine procurement necessary for the implementation of the Campaign; therefore, the output change is judged appropriate.

3.2.2 Project Inputs

3.2.2.1 Project Cost

The planned total cost of the Project at the time of appraisal was 11,844 million yen from three financial sources—8,285 million yen from the yen loan, an amount corresponding to 2,588 million yen from WB, and an amount corresponding to 971 million yen from FGN.

It was not possible to confirm the actual total cost of the Project because the evaluator was not able to ascertain the actual cost borne by WB and FGN during the Project period⁷.

⁵ It was planned that the procurement of polio vaccines necessary until May 2014 would be financed by WB, which had been providing loans for Nigeria's polio vaccine procurement prior to the Project.

⁶ The written number of the procured doses is, to be exact, the total number of doses procured during the procurement contract period established at the time of the yen loan disbursement, and the evaluator calculated the related numbers based on the Fund Utilization Reports and Statements of Account issued by UNICEF (the latter is issued for each procurement lot).

⁷ WB financed polio vaccine procurement for the Campaigns between May 2014 and December 2014, but the evaluator was not able to obtain information of its actual cost specifically during the Project period. FGN bore the financial burden for the related administration cost after the vaccine was procured and until its utilization, such as the transportation cost of the vaccine to the cold chain stores and the cost of packing necessary as a preparative procedure

Meanwhile, the actual cost financed by the yen loan was 8,269 million yen and it was 99.8% of the planned yen loan cost in the appraisal; The yen loan cost incurred until the completion of the Project (December 2015), was 97.5% of the total yen loan amount disbursed, and it was within the plan.

3.2.2.2 Project Period

The planned Project period, at the time of appraisal, was 20 months, from May 2014 (signing of the Loan Agreement) to December 2015 (completion of all Campaigns in 2015), and the actual period was as planned.

The Project was formulated to fill in the financial gap required for implementing all the Campaigns in 2014 and 2015—accordingly, it was completed by financing the polio vaccine procurement necessary until completion of all Campaigns in 2015. Although the yen loan surplus was utilized for the Campaigns in 2016 and 2017, there was no agreement record on the change in the Project completion definition. Therefore, this ex-post evaluation positions the expenditure incurred in 2016 onward⁸ as the expenditure for supporting activities to strengthen the sustainability of the completed Project.

The polio vaccine procurement cost makes up to 40%, at maximum, of the total cost necessary for implementing Campaigns. According to the interviews conducted with NPHCDA and international donors, assured funding by the Project covering all Campaigns until the end of 2015 allowed introduction of innovative approaches in 2014 and 2015, including the *Hit & Run*⁹ approach, scaling up of outside household vaccination, and vaccination at transit sites such as markets and internally-displaced-persons camps for children without a fixed residence. Furthermore, it allowed enhancement of Campaign implementation in high-risk polio transmission areas where Campaigns had not been carried out sufficiently due to safety issues. Despite the constant revision in the Campaign plan, in terms of the number of Campaigns and necessary doses adjusting with the actual polio situation, all the necessary Campaigns during the Project period were implemented without any interruption in polio vaccine procurement funding. Therefore, it is judged that the Project inputs were appropriate to achieve the Project output.

for Campaigns. However, FGN financed this through its regular financial contribution to UNICEF and as part of the co-sharing schemes with UNICEF. Therefore, the cost incurred specifically for this Project could not be calculated.

⁸ Utilization of the surplus in 2016 and 2017 was authorized by JICA without earmarking specific months of the Campaigns to be applied; therefore, UNICEF utilized it discretionally as a supplemental fund for polio vaccine procurement during 2016 and 2017.

⁹ Instead of the usual 4-day Campaigns, it implements a rapid Campaign in security-compromised areas within a few hours, so that the vaccination team leave the site before insurgents even come to know that vaccination is going on. This is implemented through deployment of larger teams than the usual Campaign with military escort. This approach was introduced in response to the killing of polio vaccinators of the Campaign in February 2013.

3.2.3 Results of Calculations for Internal Rates of Return (Reference only)

Since the Project has no profitability, and because it is difficult to rationally calculate the economically attributed benefits, the internal rate of return was not calculated at the time of appraisal.

Both the Project cost was within the plan and the Project period was as planned. Therefore, efficiency of the Project is high.

3.3 Effectiveness and Impacts¹⁰ (Rating: ③)

3.3.1 Effectiveness

3.3.1.1 Quantitative Effects (Operation and Effect Indicators)

Indicators	Baseline	Target	Actual					
	2013	2015	2014	2015	2016	2017	2018	2019
		Completion Year	1 year Before Completion Year	Completion Year				
1. Immunization coverage of OPV in the country (%)	96 (Sep.)	≥80 (Note 1)	96 (May–Dec.)	93	98	98	98	98
2. Percentage of LGAs* surveyed at ≥80% coverage by LQAS ¹¹ (%)	74 (Sep.)	≥80	89	93	96	97	96	94
3. Percentage of LGAs surveyed at ≥80% coverage by LQAS in the very very high risk LGAs and very high risk LGAs(%)	77 (Sep.)	≥80	93	96	97	96	96	93
4. Percentage of teams with viable vaccine according to the Vaccine Vial Monitor (%) (Note 2)	96 (Sep.)	≥98	100 (May–Dec.)	100	100	100	100	100

Sources: Documents provided by JICA, WHO, and UNICEF. Regarding Indicators 1, 2, 3, the given figures are the annual averages calculated by the evaluator, based on the documents provided.

*LGA: Local Government Area. Administrative division/unit that a local government is responsible for.

Note 1: The ≥80% target value used for Indicator 1 is given in the *Global Vaccine Action Plan* (2011–2020) as the target immunization coverage ratio effective for preventing infection; it is also used as the target indicator in Nigeria.

Note 2: The indicator value is calculated as (Total sum of the percentages with viable vaccine calculated by teams for each LGA ÷ Total number of teams) and is monitored by UNICEF.

Indicator 1, the immunization coverage of OPV in the country, has achieved and registered

¹⁰ Sub-rating for Effectiveness is to be put with consideration of Impacts.

¹¹ LQAS (Lot Quality Assurance Sampling) is a survey methodology adopted for the Campaigns in Nigeria to track immunization coverage in a quick and simple manner.

more than 90%, which is higher than the target value of 80%.

Indicators 2 and 3 both have achieved the target values, showing significantly increased values in comparison with those before the Project. It is considered that this is the result of the increased resources mobilized after 2014 for quality improvement in Campaigns¹² as well as new strategies to enhance vaccination of children in areas that were previously inaccessible due to conflicts and other reasons. The new strategies included outside household vaccination, vaccination at transit sites such as markets and internally-displaced-persons camps for children without a fixed residence, as well as expansion of health camps and rehabilitation of nutrition/feeding centres as vaccination sites. Furthermore, there was particular emphasis after 2014 to enhance Campaign implementation in high-risk polio transmission areas. Based on the results of interviews with NPHCDA and international donors, improved quality and wider coverage of Campaigns are believed to be the key factors that have brought the current situation with zero WPV cases since 2017.

Regarding Indicator 4, the actual values after 2014 have been maintained at 100% as a result of improved management by deploying a supervisor at each Campaign site and enhancing the training of vaccinators. The long-term effort made to strengthen the cold chain equipment for the Campaigns has also contributed as the pre-condition.

For the Project, a “Loan Conversion” contract was signed between JICA and the Bill & Melinda Gates Foundation (BMGF). Under this mechanism, BMGF takes over the loan liabilities and repays the yen loan credit on behalf of FGN if the “Trigger Indicator” established for the Project is achieved. The established trigger indicator was:

“No less than eighty percent (80%) of LGAs has been surveyed to be accepted at no less than eighty percent (80%) coverage by LQAS in at least 1 round in 2014 and 2015, respectively, in the very very high-risk LGAs and very high-risk LGAs.”

As all the LQAS conducted in 2014 and 2015 demonstrated more than 80% coverage, this trigger indicator was judged achieved, and the loan conversion was officially triggered and went into effect in 2017.

3.3.1.2 Qualitative Effects (Other Effects)

(None)

3.3.2 Impacts

3.3.2.1 Intended Impacts

¹² Quality improvement in Campaigns refers to addressing non-compliance issues of vaccination operation, increased focus on hard-to-reach populations, and strengthening data management on Campaign implementation, for example.

[Quantitative Impacts]

Table 1: Number of reported polio cases

	2012	2013	2014	2015	2016	2017	2018	2019
WPV	122	53	6	0	4	0	0	0
cVDPV	8	4	30	1	1	0	34	18
Total	130	57	36	1	5	0	34	18

Sources: *Nigeria Polio Eradication Emergency Plan 2019*, and websites of the GPEI and WHO

After the last confirmed case in August 2016, WPV has not been reported in Nigeria. The related documents were accepted by ARCC in June 2020 and consequently Nigeria was granted polio-free status. According to the results of interviews with NPHCDA and international donors, it is judged that the significant decrease in the number of reported WPV cases since the Project launch can be attributed to the Campaigns implemented in 2014 and 2015, which the Project supported by financing the polio vaccine procurement. To be specific, the significant increase in immunization coverage after 2014 is considered as the major contributing factor—a result of the Campaigns during the Project period that improved the quality of the Campaigns and enhanced vaccination for children in areas previously inaccessible due to safety issues caused by conflicts. After Nigeria achieved polio-free status, the WHO African Region was consequently declared polio-free in August 2020.

[Qualitative Impacts]

“Improvement in the health of Nigerian children through polio eradication”

In this ex-post evaluation, data regarding children’s health conditions was collected from the existing health surveys in Nigeria; it was analyzed against the polio eradication progress (i.e. the number of actual polio cases), and the evaluator had discussions with officials of NPHCDA and international donors to confirm if there is any causal relationship between them. Specifically, the evaluator collected in advance the basic health indicators of children aged under five, including the mortality rate, vaccination coverage, nutrition conditions, and underweight rate, of the past 10 years and held discussions with specialists, seeking their epidemiologic viewpoint, on their causal relationship with the progress of polio eradication in the country. Based on these discussions, it was judged difficult to find a clear/direct causal relationship between polio progress and children’s health because the latter is influenced by multiple factors in a complex way.

3.3.2.2 Other Positive and Negative Impacts

- (i) Impact on social development: Benefits generated for the target areas and beneficiaries

As an impact on social development through polio eradication, improvement in health services is expected as an effect of the Campaigns. As part of the Campaigns, which the Project supported through polio vaccine procurement, rehabilitation of Primary Health Centres (PHC) and expansion of community-level nutrition/feeding centres were promoted as strategies to increase the number of vaccination sites during the Project period. Additionally, more than 20,000 Community Volunteer Mobilizers (CVM) were hired and trained from 2014 to 2015 to conduct door-to-door visits of each household in communities, and surveyed polio issues, which consequently contributed to understanding of the actual living and sanitation conditions as well as the communities' needs. It was decided in 2019 that CVM will continue their activities within a framework to enhance primary healthcare services. Along with an expectation to utilize the rehabilitated health-related facilities, it is expected to contribute to the improvement of health services at the community level in the future as impact. Additionally, Campaigns should contribute to promoting RI in the long term, and subsequently improving the health of the general population. This should thus contribute to the social development aspects in due course, including decreased medical cost, increased school attendance rate, and increased opportunities to participate in economic activities, and potentially enhance regional and national development in the future.

(ii) Impact on gender

Approximately 95% of CVM hired for the Campaigns, which the Project supported through polio vaccine procurement, were women; this is thus considered to have enhanced women's empowerment in the health sector. The reason for the high employment rate of women lies in Nigeria's cultural background—they are culturally preferred over men when it comes to making door-to-door visits and conversations with mothers, and also to conducting indoor vaccination inside the house.

(iii) Impact on the natural environment/resettlement and land acquisition

The Project financed polio vaccine procurement—there was no impact on the natural environment, and neither resettlement nor land acquisition was required.

(iv) Other impacts

According to the international donors, the experience of establishing the polio Emergency Operation Centre (EOC) and related infrastructure formed by EOC was applied effectively to an emergency operation that was required for Ebola hemorrhagic fever in 2014. It is expected that the polio experience will be utilized effectively for future emergency operations in the event of an outbreak of other epidemics. As an indirect impact of activities outside of Campaigns, health

camps were held as RI sites with particular focus on high-risk polio transmission areas as a strategy to increase RI coverage including polio immunization. In these health camps, intervention for other felt needs of each community, such as malaria diagnosis, general disease treatment, provision of anti-helminthic and multivitamin supplementation, was carried out, which contributed to enhancing the available health services at the community level.

In sum, the Project achieved all the effect indicators—immunization coverage of OPV by the Campaigns achieved 93%, higher than the target of 80%, in the Project completion year; the other two indicators of immunization coverage surveyed through LQAS also achieved their targets, showing significant improvement compared with the values registered before the Project. As an impact of the Project, the Campaigns contributed to the significant decrease in the number of WPV cases after 2014, and WPV has not been reported since 2017 in Nigeria.

Thus, this Project has achieved its objectives. Therefore, effectiveness and impacts of the Project are high.

3.4 Sustainability (Rating: ②)

3.4.1 Institutional / Organizational Aspect of Operation and Maintenance

Under the new government that took charge in 2019, the presidential task force on polio is maintained with the same function as at the time of appraisal—it regularly reports on the polio status and advises state governors for ensuring appropriate implementation of Campaigns in each state through official meetings, such as the National Economic Council that is a forum to discuss national economic policies. Regarding Campaigns, there is no change in the institutional structure since the Project appraisal—the EOC, headed by NPHCDA, coordinates all polio eradication initiative activities that are implemented jointly by government and development partners, with leading technical roles played by international donors such as WHO and UNICEF in accordance with the GPEI.

On the other hand, Nigeria was granted polio-free status in 2020 and a transition plan of the institutional framework for polio activities from international donors to FGN is under discussion at the time of ex-post evaluation. Campaigns will be scaled down gradually after receiving the polio-free certification, and the institutional framework established for polio eradication will be integrated into the framework of RI; the plan is to maintain the polio-free status by enhancing RI. The *Nigeria Strategy for Immunisation and PHC System Strengthening (2018–2028)* (NSIPSS) describes the transition plan of the related policies and infrastructure, and the international donors that have supported the Campaigns have expressed their continuous support for implementing the NSIPSS. While NSIPSS defines that NPHCDA drives policy and central

coordination regarding immunization and the state levels are tasked with implementation, the challenge will be the huge variation in RI performance and achievement levels of the States. Furthermore, the NSIPSS upholds the other two main pillars, strengthening PHCs¹³ and Surveillance Capacity.

Based on the NSIPSS, an asset mapping exercise was conducted in which all the assets established through the polio eradication activities were listed, including vaccine transportation infrastructure, data management tools, and Campaign operation framework. At the time of ex-post evaluation, discussion is underway to identify relevant institutions in the health sector, including NPHCDA, that can inherit/absorb such assets in the future, and to plan in detail how best to transfer such assets to them. Approaches that have been implemented to enhance immunization coverage, such as health camps, are expected to continue in the RI framework.

Despite that WPV has not been reported since 2017, cVDPV cases are reported continuously. As a measure, the use of trivalent OPV was suspended and fractional use of Inactivated Polio Vaccines has been in practice since April 2016.

3.4.2 Technical Aspect of Operation and Maintenance

At the time of ex-post evaluation, polio vaccine procurement for Campaigns is executed by UNICEF, as at the Project appraisal time. In parallel, UNICEF provides technical support to FGN in vaccine procurement for RI, together with GAVI¹⁴.

Operation manuals and guidelines that describe the detailed procedure to implement Campaigns were developed for the OPV immunization staff and surveillance officers prior to the Project; these are well utilized at the time of ex-post evaluation. In addition to the training for Campaign-implementing staff and officers, training for Campaign managers and supervisors is also conducted with the support of WHO and the Centers for Diseases Control and Prevention of the United States of America (CDC) as necessary. WHO will put further emphasis on the strengthening of surveillance capacity in the transitional phase as a means to ensure sustainability of the polio-free status. WHO will also continue providing technical support to strengthen the capacity of Nigeria's polio laboratories.

However, as the Campaigns have been implemented through the leading technical roles played by international donors such as WHO and UNICEF, it can be said that technical sustainability

¹³ In accordance with the NSIPSS, out of the 9,566 wards (minimum administration unit) across the country, about 800 are without a single PHC. In addition, approximately 80% of the existing PHCs are not functional due to lack of medical equipment and shortage of health workers.

¹⁴ GAVI (The Global Alliance for Vaccines and Immunization) is a public-private partnership to promote global health through improvement in access to vaccines in developing countries to save lives of children and transform the lives of individuals with better health; partners include WHO, UNICEF, WB, BMGF, donor countries, developing country governments, vaccine manufactures, research and technical health institutes, NGOs, and faith-based organizations.

of NPHCDA alone be constrained. While international donors are planning to continue providing support for NPHCDA, further capacity development is required at State and LGA levels to strengthen the RI implementation framework as a means to maintain high polio immunization coverage. A five-year technical assistance plan for RI-implementing officers at State and LGA levels is under discussion at the time of ex-post evaluation.

3.4.3 Financial Aspect of Operation and Maintenance

Polio vaccine procurement after the Project has been financed by WB through “Polio Eradication Support Project Additional Financing”, which will be completed in the end of 2020. It has been planned that the cost of vaccine procurement after it will be financed under a component of the “WB Multiphase Programmatic Approach (MPA)” for the period of 2020–2030. According to a WB official, “MPA” will not be a polio-specific programme, but a programmatic approach to support the strengthening of RI, surveillance, cold chain infrastructure¹⁵, and PHCs among others, and will be aligned to the NSIPSS.

The necessary budget for vaccine procurement for RI and related campaigns between 2018 and 2028 is estimated to be USD 2.7 billion. In 2018, 50% of the necessary budget was financed by FGN (the rest was covered by GAVI). In an agreement with GAVI in 2018, FGN has committed to gradually increase the annual budget allocation for vaccine procurement and bear 100% financial burden necessary for it by 2028. FGN has also committed to yearly allocate USD 300 million after 2028. According to the NSIPSS, FGN’s immunization financing has actually increased over the years—it had allocated about USD 29 million to NPHCDA for RI vaccines and devices in 2018, a 116% increase on the 2017 budget.

On the other hand, some interviewees expressed concern over the possibility of donors’ financial assistance gradually shifting to other polio-endemic countries after acquisition of the polio-free certification. According to the NSIPSS, the GPEI’s budget allocation for Nigeria decreased by 56% between 2016 and 2019, which may particularly affect the continued employment of the approximately 23,000 polio-funded personnel, right from staff of international organizations to those hired at the community level. A measure to ensure financing of the RI operation, which is estimated to require USD 600 million between 2018 and 2028 (excluding personnel cost), along with improvement in operational efficiency, is under discussion at the time of ex-post evaluation. However, financial sustainability of the operation, especially at the levels of the State and LGAs, which are responsible for the actual RI implementation, is not yet guaranteed at the time of ex-post evaluation.

¹⁵ Cold chain stores are considered insufficient for vaccines for general communicable diseases, and the necessary logistics are not well established in consideration of the strengthening of RI.

3.4.4 Status of Operation and Maintenance

Neither operational issues nor delays have occurred in the polio vaccine procurement process under UNICEF at the time of ex-post evaluation. The cold chain is functioning appropriately to implement Campaigns.

The polio-free status of Nigeria was confirmed by ARCC in June 2020 and WHO African region was also declared polio-free in August 2020. Under these circumstances, the plan is to gradually scale down Campaigns and integrate the polio eradication efforts into the RI framework. Nevertheless, Campaigns will be continued for the next few years as the RI operation is not set up adequately yet. Campaign is planned with a three-years period so the concrete Campaign plan has been developed till 2022 at the time of the ex-post evaluation. The number of implemented and planned Campaigns after 2016 is given in the following table.

Table 2: Number of Campaigns implemented and planned after the Project

Implemented				Planned		
2016	2017	2018	2019	2020	2021	2022
10	7	10	9	3	3	2

Source: Documents provided by WHO

As a summary of sustainability, with respect to Campaign implementation including polio vaccine procurement, the institutional/organizational aspects are well established, and there is no change since the Project appraisal time; there are no major issues in the technical or financial aspects, and Campaigns have been executed without major issues in accordance with the Campaign plan, which is constantly updated along with the actual polio situation.

The institutional and organizational framework to maintain the polio-free status, however, will shift from Campaigns to RI. The institutional/organizational aspects of RI implementation are not fully established yet at the time of ex-post evaluation. The focus of international donors' support is also expected to shift from Campaign implementation to the strengthening of RI, while also supporting improvement of general disease surveillance including communicable diseases and strengthening of PHCs; discussion is underway to set up the necessary framework accordingly. At the time of ex-post evaluation, discussion on concrete steps and procedures is underway to implement the developed transition plan; there are, however, uncertainties in the institutional/organizational, technical, and financial aspects to maintain the polio-free status, from the viewpoint of long-term sustainability.

Thus, some minor problems have been observed in terms of the institutional/organizational aspect, technical aspect, financial aspect, and current status. Therefore, sustainability of the Project effects is fair.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

The objective of the Project was to optimize administration of the polio vaccine to children under five years, by procuring OPV necessary to implement Campaigns in 2014 and 2015, thereby contributing to the early eradication of polio in the whole country. Nigeria was one of the three polio-endemic countries at the time of appraisal, and the international community had positioned Nigeria as the most prioritized country for polio eradication. Polio eradication was also positioned as an emergency and a priority issue by the FGN, and the Project is consistent with the national development plans and the development needs. Furthermore, the Project was consistent with Japan's ODA policies that have demonstrated strong commitment toward the health sector in the international arena. Therefore, its relevance is high. The Project cost was within the plan and the Project period was as planned, and accordingly the efficiency is high. All of the operation and effect indicators set up for the Project were achieved, including immunization coverage. Consequently, impact was confirmed in the controlled number of WPV cases after 2014, and no case of WPV has been reported since 2017. Therefore, effectiveness and impacts are high. Regarding sustainability, there are no major issues in the implementation of the Campaigns in the institutional/organizational, technical, and financial aspects: the Campaigns are implemented in accordance with the plan. Meanwhile, future polio eradication activities are planned for integration into the RI framework. The institutional framework of RI is not yet well established, and detailed activities to implement the transition plan are under discussion at the time of ex-post evaluation, hence there is uncertainty in institutional/organizational, technical, and financial aspects of the transition plan implementation. Therefore, sustainability is fair.

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

4.2 Recommendations

4.2.1 Recommendations to the Executing Agency

To maintain the polio-free status, achieved due to the long-term effort supported by international donors including the Project, it is recommended that FGN establish at the earliest a sound institutional framework of RI and strengthen surveillance capacity. Under these circumstances, it is also recommended that NPHCDA ensure the necessary budget allocation for the transition plan of polio activity framework from Campaigns to RI and establish a structure to support capacity development of health ministries at the level of the State, which will be responsible for implementing RI.

4.2.2 Recommendations to JICA

None

4.3 Lessons Learned

Project formulation that fully leverage the existing international aid coordination framework

In Nigeria, the international aid coordination framework had been established for polio eradication activities over decades in line with the GPEI. Accordingly, overall coordination of polio strategy-making and activities has been managed by EOC, which is headed by NPHCDA in collaboration with a number of international donors, making the most of the specialized capacities of each international donor toward the common goal of polio-free certification. On the other hand, JICA did not have project experience with exclusive focus on polio-specific issues in Nigeria before the Project. Considering this, the Project was formulated leveraging the efforts of the existing international aid coordination framework to minimize the Project risk; this consequently led to full achievement of the expected development effects.

Furthermore, the Project was authorized retroactive financing for polio vaccine procurement for the Campaigns that took place before the Project in the event that WB's funds got exhausted earlier than anticipated; the need to apply this, however, did not arise and the retroactive financing was not applied. Additionally, JICA authorized utilization of the yen loan surplus to support polio vaccine procurement after the Project completion. Thus, the Project endorsed flexibility in its terms of the yen loan disbursement, including the finance allocation period and conditions, within the international aid coordination framework under the common goal of polio-free certification. This flexibility helped eliminate a risk involved in securing financial resources in spite of the constant revision of the Campaign plan that modifies the necessary number of vaccines and its types to be procured, thus ensured continuous implementation of Campaigns. In the long run, it secured the continual and stable implementation of Campaign strategies and plans that were established and developed by the international aid coordination framework, thereby making a significant contribution to interruption of WPV transmission after the Project.

In such a situation, as the Project, where the international aid coordination framework has been well established for the target assistance area in the beneficiary country, a new JICA project should be formulated to leverage the existing framework, which consequently should minimize risks of the JICA project itself. In addition, allowing flexibility in the JICA loan disbursement, as permitted in the Project, should maximize the outcomes generated by the existing international aid coordination framework.

**BOX: Coordination framework of international efforts for
the polio eradication initiative in Nigeria and its development effect and impact**

1. Coordination framework of international efforts for polio eradication in Nigeria: Role of international donors and the Project

The GPEI was launched in 1988 at the 41st World Health Assembly with the aim of interrupting WPV transmission. It was agreed that four spearheading partners—WHO, UNICEF, CDC, and Rotary International—would have the following defined roles:

- WHO, as the lead organization, provides overall strategic planning, technical direction and support, and is responsible for the surveillance and certification process. WHO also coordinates operations, resource mobilization, donor contributions and advocacy activities for Campaigns. UNICEF procures and delivers vaccines and supports countries in developing and implementing communication and social mobilization strategies. Together with the partners, it supports countries in running Campaigns. It also works with the vaccine industry to maintain sufficient supply of OPV.
- CDC deploys epidemiologists, public health experts, and other scientists to WHO and UNICEF for the eradication initiative. It also provides funding for the OPV and a wide range of technical expertise and laboratory support.
- Rotary International was the first to inspire the vision of a polio-free world. Its primary responsibilities are fundraising, advocacy, and volunteer recruitment.

In 2007, BMGF joined as the fifth spearheading partner and became a major funder of the activities under the initiative, including Campaigns, operational costs of EOC, and innovative technologies.

The five institutions delegate staff to EOC in Nigeria, which was established in 2010, and have been an integral part of the daily EOC operation for the polio eradication initiative. EOC is commissioned as a management tool for NPHCDA and headed by the Incident Manager assigned from NPHCDA, and coordinates the overall response and related activities under the initiative.

In Nigeria, efforts for polio eradication have been made over decades through the international aid coordination framework in line with the GPEI. At the end of 2011, FGN made an urgent call to international donors for assistance, requesting funding to meet the financial requirement for polio vaccine procurement—WB, which had financed polio vaccine procurement in Nigeria for more than a decade, had expressed its intention to conclude the funding for polio vaccine

procurement with the completion of the “Polio Eradication Support Project” (2012–2014). Around the same time, the Japanese government requested JICA to analyze the feasibility of formulating the Project, as the second project to support polio eradication efforts after the “Polio Eradication Project,” an ODA loan project implemented in Pakistan. Furthermore, it fell under Japan’s Assistance Package for Africa, “Financial Support of 50 Billion Yen to the Health Sector,” which was included in the category “V. Creating an Inclusive Society for Growth,” in the *Yokohama Action Plan 2013–2017* adopted by TICAD V held in 2013. Accordingly, the Project formulation was promoted by all actors of the Japanese government as one.

On the other hand, there had been no Japanese yen loan project in Nigeria since the 1992 “Telecommunications Network Development Project”, which was the second yen loan to Nigeria. Nevertheless, with respect to polio eradication efforts in Nigeria, the “Buy-Down” financing mechanism was already in place with the existing WB project—the WB loan credit was repaid through a fund financed by BMGF on the condition of successful completion of its project where all the established trigger indicators for the Campaigns were met. JICA, too, had prior experience of signing a similar “Loan Conversion” agreement with BMGF in the yen loan “Polio Eradication Project” in Pakistan in 2011; this led to high expectations of application of a similar mechanism in Nigeria to finance polio vaccine procurement as a yen loan project. It is noteworthy that the “Loan Conversion” mechanism in Nigeria was distinctive in that BMGF assumed all liability to repay the loan on behalf of FGN, on the condition that the Project achieved the pre-established trigger indicator.

2. Development effect and impact of international aid coordination framework on Nigeria’s polio eradication initiative

Nigeria was one of the remaining three polio-endemic countries (along with Afghanistan and Pakistan) in the world and the only polio-endemic country in Africa at the time of appraisal in 2014. As the most prioritized country for polio eradication activities, it was receiving intensive investment of resources and assistance from international donors. Highly specialized personnel from international organizations were dispatched to EOC, and FGN utilized the abundant resources to the utmost, including highly specialized human resources and technical assistance from the international organizations with expertise in the area. As a result, the polio eradication initiative in Nigeria has successfully generated development results—interruption of WPV transmission after 2017.

Based on the results of interviews with the major international donors in Nigeria, it is considered that the high commitment demonstrated by all actors in Nigeria under the strong

initiative of FGN, as demonstrated by the presidential task force, was one of the contributing factors that maximized the effects of the resources and technical assistance intensively provided by the international aid coordination framework. While all actors from public institutions, including those at the State and community levels, to social actors such as religious groups and local traditional leaders, demonstrated high commitment to the polio eradication initiative, international donors highly recognized the important role that FGN has played in the international aid coordination framework. Donor officials interviewed in Nigeria agreed that NPHCDA has demonstrated strong commitment and leadership in overall coordination in the polio eradication initiative, and also has assured accountability to donors in the related activities and strategies, which is considered to be another contributing factor that maximized the effect of international aid coordination. However, with respect to the Campaigns, specialized international organizations such as WHO and UNICEF have substantially led the strategy-making and implementation, and thus, NPHCDA's institutional and technical contribution is considered limited here.

The Project ensured the continuous implementation of the Campaigns, which was a critical factor at the last mile stage to achieve polio eradication, and contributed to the interruption of WPV transmission after 2017, as described in this report. The polio-free status of Nigeria was confirmed by ARCC in June 2020, and it is judged that the Project has successfully leveraged the development results and efforts built up in Nigeria over the decades by a number of international donors, and contributed toward achievement of the common goal of polio eradication. In addition, there were few donors other than WB that were able to offer financial resources on such a large scale for polio vaccine procurement at the time of appraisal—the Project proved to the international arena the advantage of Japanese ODA, which has a yen loan scheme option that offers financial support on a large scale, as well as the commitment of the Japanese government in supporting global health.

In the polio eradication initiative in Nigeria, EOC has led the monitoring, carrying it out using the commonly established indicators by the international aid coordination framework, to confirm achievement of the outcome, “Eradication of WPV i.e. Interruption of WPV Transmission.” The monitoring methodology is soundly established with support from international donors, for which training is held continuously and its supervision, too, has been strengthened, so that the quality of the monitoring implementation is ensured. The related data, including the indicator values and the number of new polio cases, is updated weekly and shared with all international donors in the Excel format. Additionally, the progress in polio eradication is reported to the donors through periodic donors' meetings, where review of the existing

activities and new strategies are discussed. On the other hand, whereas financial resources are provided by a number of international donors to be invested in related activities, fund management and monitoring of its specific output in a distinctive management framework and reporting format by the respective donor are not in practice within the international aid coordination framework in Nigeria. Therefore, it was difficult to manage and report exclusively on the Project and yen disbursement. Specifically, the yen loan Project management required recalculation of the polio-related data, extracting the corresponding data for which the yen loan was utilized exclusively—such data should be submitted to JICA, along with the monitoring data elaborated by the existing international aid coordination framework. This was a difficult task for NPHCDA. JICA tried to collect the necessary data from other donors and by hiring a local consultant to support elaboration of the necessary reporting, JICA resulted in struggling with its Project and finance management. Nonetheless, it faced some struggles vis-à-vis the Project and finance management.

3. Considerations

[The aid harmonization in management perspective of the yen loan project that comprises a program managed by an international aid coordination framework: Consideration of an alternative management and evaluation framework at the program level]

When the implementation and management framework of a supporting program is already well established by an international aid coordination framework, requiring exclusive data and management regarding JICA-financed activities, particularly in a distinctive reporting format of JICA, implies extra burden for not only the beneficiary country but also donors. When yen loan is applied to activities that are an integral part of a program managed by an international aid coordination framework with other international donors, it is important for JICA to discuss with the beneficiary government, as well as internally with its related departments, at the time of project formulation, which reporting contents and format would be the most optimal for the beneficiary government to handle and from the viewpoint of program management efficiency, while satisfying conditions to ensure accountability. In the process of discussing the terms and conditions for yen loan management, it is hoped that all parties make efforts to enhance aid harmonization to the best of their ability, in consideration of “Aid Effectiveness” and “Global Partnership for Effective Development Cooperation.”

[Benefits and issues in utilizing funds from the private sector]

In Nigeria, the yen loan project was not implemented prior to the Project over the past decades owing to debt relief and the country’s governance vulnerability. However, there was no major issue in the credit conditions of FGN at the time of appraisal; by utilizing the “Loan

Conversion” mechanism and international aid coordination framework, the perfect opportunity was presented to restart the yen loan for FGN that was mobilizing resources from selected financial sources. This experience is expected to act as a reference for countries with similar development conditions when needing financial resources on a large scale, as an innovative option to diversify financing options and sources of ODA, utilizing the private sector’s funds.

On the other hand, utilization of the private funds in this Project required extensive administrative arrangement, including a wide range of analysis and negotiations from such perspectives as financial conditions, credit management, and risk management among others, to establish a contract with the private financing partner. Furthermore, JICA required extensive time and efforts to coordinate with and obtain approval from the relevant Japanese ministries to prepare and sign the “Loan Conversion” contract, particularly on its unique financial terms and conditions. JICA should deeply deliberate in advance the required administrative cost and procedures for signing similar contracts with private financing partners, when considering utilization of private sector’s funds to formulate a yen loan project. Once partnerships to be formed are determined, departments specializing in finance and legal issues should be fully involved as part of the appraisal team.

Comparison of the Original and Actual Scope of the Project

Item	Plan	Actual
1. Project Outputs	Procurement of 476 million doses of OPV necessary for Campaigns in 2014 and 2015 (9 Campaigns in 2014 and 7 Campaigns in 2015)	- Procurement of 451 million doses of OPV necessary for Campaigns in 2014 and 2015 (9 Campaigns in 2014 and 8 Campaigns in 2015) - Procurement of 12 million doses of OPV for Campaigns during 2016 and 2017
2. Project Period	May 2014 – December 2015 (20 months)	As planned
3. Project Cost		
Amount Paid in Foreign Currency	11,390 million yen	Not available
Amount Paid in Local Currency	454 million yen (720 million naira)	Not available (Not available)
Total	11,844 million yen	Not available
ODA Loan Portion	8,285 million yen	8,269 million yen
Exchange Rate	1 naira = 0.63 yen 1 USD = 158.2 naira (As of November 2013)	
4. Final Disbursement	December 2017	

Federal Republic of Nigeria

FY2019 Ex-post Evaluation of Japanese Grant Aid Project

“Project for Construction of Classrooms for Primary Schools in Oyo State”

External Evaluator: Ruiko Hino

Foundation for Advanced Studies on International Development

0. Summary

This project aims to improve the learning environment by constructing primary school facilities and providing educational furniture, thereby contributing to the improved quality of and access to primary education in Oyo State, Nigeria. As this objective was consistent with the development plan and development needs of Nigeria as well as Japan’s ODA policy, the project relevance is high. The project cost was as planned, but the project period was slightly longer than planned due to considerations for work, etc., as the number of bidders was greater than expected. As for outputs, in comparison with the plan, six additional classrooms were constructed, and educational furniture for classroom use was additionally procured. Therefore, the efficiency of this project was high. For quantitative effects – the number of pupils enrolled in the target schools and the number of pupils per classroom in the target schools, the reliability of the baseline data is insufficient. It was not possible to clearly compare the baseline value with the actual value. In addition, since some effects were not confirmed from the results of the qualitative surveys conducted in this evaluation, it can be said that this project achieved its objectives only to some extent. Therefore, the effectiveness and impacts of the project are fair. Some minor problems have been observed in terms of the technical and financial aspects and current status. Therefore, sustainability of the project’s effects is also fair.

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

1. Project Description



Project Location



Classroom Constructed by the Project
(I.D.C. Basic Sch. Akobo)

1.1 Background

The Government of the Federal Republic of Nigeria (hereinafter referred to as “Nigeria”) issued a top-level policy document, *Nigeria Vision 20:2020 (2008-2020)*. In this policy, Nigeria aims to enter the world’s top 20 economies by 2020. For that purpose, Nigeria needs to increase its international competitiveness. Improving the citizens’ capacity is vital, so the improvement of educational facilities was one of the country’s top priorities.

In 1999, nine years of basic education (primary, six years; junior secondary, three years) was made compulsory and free of charge. The enrolment rate of basic education improved significantly from 57% in 1998 to 95% in 2005 (Universal Basic Education Committee (hereinafter referred to as UBEC), 2012). On the other hand, the development of schools and classrooms could not keep up with the increasing number of pupils, and the actual supply of 18,945 classrooms (UBEC, 2013) was absolutely short for the demand of 27,230 classrooms in view of the number of pupils. In addition, the number of classrooms in good condition was only 53% of the total (UBEC, 2013). In particular, in Oyo State, where this project took place, the average number of pupils per classroom was 65 (UBEC, 2012), significantly exceeding 40 pupils per classroom, which is the maximum capacity set in Nigeria (hereinafter referred to as the national *minimum standard*). In addition, the existing classrooms included a great number of classrooms with damaged walls and roofs that leaked in the rain. As a result, pupils were forced to learn in poor environments. Based on this background, Nigeria requested the grant aid from Japan for the Project for Construction of Classrooms for Primary Schools in Oyo State.

1.2 Project Outline

The objective of this project is to improve the learning environment by constructing primary school facilities and providing educational furniture, thereby contributing to the improved quality of and access to primary education in Oyo State, Nigeria.

Grant Limit/Actual Grant Amount	1,277 million yen/1,277 million yen
Exchange of Notes Date /Grant Agreement Date	September 2014/September 2014
Executing Agency	Oyo State Universal Basic Education Board (hereinafter referred to as “Oyo SUBEB”)
Project Completion	June 2016
Target Area	Oyo State

Main Contractors	(lot1) Ciroco Nigeria Ltd. (lot2) Best & Crompton Engineering Africa Ltd.
Main Consultant	Yachiyo Engineering Co., Ltd.
Procurement Agency	Japan International Cooperation System
Preparatory Survey	September 2013 - September 2014
Related Projects	Technical cooperation: “Strengthening of Mathematics and Science Education in Nigeria Project, Phase 2” (August 2010 – February 2014) Grant Aid: “Project for Construction of Additional Classrooms for Primary Schools (Phase 2)” (2010) and “Project for Construction of Additional Classrooms for Primary Schools” (first phase: 2004; second phase: 2005; third phase: 2006)

2. Outline of the Evaluation Study

2.1 External Evaluator

Ruiko Hino, 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: January 5, 2020 – January 18, 2020

3. Results of the Evaluation (Overall Rating: B¹)

3.1 Relevance (Rating: ③²)

3.1.1 Consistency with the Development Plan of Nigeria

In *Nigeria Vision 20:2020*, the goal was to achieve 100% primary education enrolment by 2015 and 100% junior secondary education enrolment by 2020 for both boys and girls in basic education. Oyo State, the target region, created *Oyo State Vision 2020: Macroeconomic Framework, Economic Transformation Blueprint, Nigeria Vision 2020*. In the document, the policy of the education sector was to increase equitable access and ensure the provision of basic

¹ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

² ③: High, ②: Fair, ①: Low

education to improve the quality of basic education for children in Oyo State.

In addition, The Federal Ministry of Education's strategic document, *Education for Change A Ministerial Strategic Plan (2018-2022)*, also stated as one of its goals that the Nigeria's formal and non-formal education system would provide 100 percent access to quality education for out-of-school and school-age children of both sexes in basic education by 2022. Furthermore, in the main strategic document of Oyo SUBEB, *Oyo State Medium Term Basic Education Strategic Plan (2017-2019)*, one of the five policy objectives is "to improve the efficiency of the education system through the provision of infrastructure facilities".

Thus, from the time of planning to the time of ex-post evaluation, expansion of access to basic education has been positioned as an important pillar of the policy, and the provision of infrastructure facilities is considered important for the expansion of access. Therefore, this project's aim to improve the learning environment by constructing primary school facilities and providing educational furniture in Oyo State, Nigeria is highly consistent with the development policy of Nigeria.

3.1.2 Consistency with the Development Needs of Nigeria

At the time of planning, the development of schools and classrooms could not keep up with the growing number of pupils, and the actual supply of 18,945 classrooms (UBEC, 2013) was absolutely short for the demand of 27,230 classrooms in view of the number of pupils. In Oyo State, the average number of pupils per classroom was 65 (UBEC, 2012), and the figure was 112.5 in the target schools, significantly exceeding the national *minimum standard* of 40; thus, improvement of the learning environment was desired.

The number of classrooms in view of the number of pupils in Nigeria has not yet been met at the time of ex-post evaluation. The number of pupils per classroom in Oyo State increased from 65 as of 2012 to 69 as of 2015, still exceeding the national *minimum standard* of 40 as it did at the time of planning.³

Therefore, the needs for the construction of additional primary school classrooms and the provision of furniture are still high, and the implementation of this project is consistent with the development needs of Nigeria.

3.1.3 Consistency with Japan's ODA Policy

According to the *Country Assistance Policy for the Federal Republic of Nigeria (2012)*, the basic policy of the Japanese ODA was to "promote sustainable economic and social development". As a point to be considered for the implementation of ODA, "development needs in rural areas including poverty" was stated. It was also stated that it was necessary to work in a balanced manner to address development issues faced in rural areas. In addition, among the priority areas

³ Document provided by Oyo SUBEB

of Japan's support for Africa in the 5th Tokyo International Conference on African Development (TICAD V) *Yokohama Action Plan 2013-2017*, "improving access to and quality of primary and secondary education, as well as vocational training, with consideration to equity through provision of adequate educational facilities, capacity development of teachers and improvement of management and administrative capacity of stakeholders" was raised.

From above, Japan's ODA policy at the time of planning indicated a policy to address development issues in rural areas of Nigeria and the need to improve equitable access to primary education. The project aimed to improve the learning environment by constructing primary school facilities and providing educational furniture, thereby contributing to the improved quality of and access to primary education. In this light, it can be said that this project was in line with Japan's aid policy at that time.

In light of the above, this project has been highly relevant to Nigeria's development plan and development needs, as well as Japan's ODA policy. Therefore, its relevance is high.

3.2 Efficiency (Rating: ③)

3.2.1 Project Outputs

This project implemented the construction of school facilities and the procurement of furniture and teaching tools. In addition, a capacity-building program (soft component) was implemented for those involved in facility maintenance. The original scope and actual scope of the project are as shown in Tables 1 and 2 below.

Some of the components planned at the time of the outline design were reduced to address the shortage of U.S. dollar money due to foreign exchange losses during the detailed design.⁴ Subsequently, a residual amount (about 57 million yen) was generated as a result of bidding for facility construction and furniture procurement. In response, Nigeria requested additional construction of classroom buildings using residual funds. Additional classroom buildings were constructed in two of the six schools that were subject to reduction at the time of the aforementioned component reduction. As a result, the number of classrooms constructed and some of the furniture procured increased from the plan.

⁴ Due to the sudden increase in the yen and requests from the Nigerian side, the number of target schools was reduced by 6 (36 schools were reduced to 30 schools). Accordingly, 12 classroom buildings (36 classrooms), 40 toilet booths, 720 sets of desks and chairs for pupils, 36 sets of desks for teachers, and 36 sets of blackboards and bulletin boards were reduced (see *Completion Report*, p. 5).

Table 1 Comparison of the Planned and Actual Scope of the Project
(Facilities and Main Equipment)

	Item	Planned	Actual	Difference
Facilities	Classroom building	74 buildings ⁵	76 buildings ⁶	2-building increase
	Number of classrooms	225 classrooms	231 classrooms	6-classroom increase
	Administration office (principal's and teachers' room)	2 rooms	2 rooms	None
	Toilet booths	218 booths ⁷	218 booths	None
Furniture	Desks and chairs (for two pupils each)	4,500 sets	4,620 sets	120-set increase
	Teachers' desks and chairs	239 sets	245 sets	6-set increase
	Blackboards	225 pcs	231 pcs	6-pc increase
	Bulletin Boards	231 pcs	237 pcs	6-pc increase

Source: Documents provided by JICA

Table 2 Comparison of the Planned and Actual Scope of the Project (Soft Components)

Planned	Actual	Difference
Provision of maintenance manual and monitoring manual for school buildings	Provision of maintenance manual and monitoring manual for school buildings	None
Practice of maintenance and management activities at four model schools	Practice of maintenance and management activities at four model schools	None
Holding maintenance workshops in the above four schools	Holding maintenance workshops in the above four schools	None
Provision of advice and guidance to Oyo SUBEB and Local Government Education Authorities (hereinafter referred to as LGEAs) in order to utilize the above manuals for monitoring and teaching activities	Provision of advice and guidance to Oyo SUBEB and LGEAs ⁸ in order to utilize the above manuals for monitoring and teaching activities	None

Source: Documents provided by JICA

The responsibilities of the Nigerian side included construction work (installation of fences and gates); preparation of construction sites; procurement of the furniture other than desks and chairs, blackboards, and bulletin boards; security during and after the construction; and preparation and improvement of school facilities (preparation of teaching materials, allocation of teaching staff, and repair of existing classrooms for continuous use). These were carried out almost as planned. However, some tasks (installations of fences and gates, repair of existing

⁵ 4-classroom-type plan × 5 buildings, 3-classroom-type plan × 69 buildings. In the two 4-classroom-type buildings, one room is an administration room.

⁶ 4-classroom-type × 5 buildings, 3-classroom-type × 71 buildings.

⁷ 4-toilet-booth type × 26, 6-toilet-booth type × 19

⁸ At the time of the ex-post evaluation, LGEA has been renamed Local Government Universal Basic Education Authority, but in this report, it is described as LGEA for convenience.

classrooms for continuous use) were not implemented due to lack of budget and other reasons. Despite the fact that the classrooms constructed in this project were used without problems, the target value of the number of classrooms available in the target schools⁹ shown in Table 3 as a reference indicator was not achieved. The cause of this underachievement may be due to the failure to repair existing classrooms or hand them over as scheduled, which the Nigerian side was responsible for.

3.2.2 Project Inputs

3.2.2.1 Project Cost

The actual cost of the project was 1,277 million yen, which was in line with the grant approved amount of 1,277 million yen as planned (100% of the plan). The cost burden on the Nigerian side was 15 million yen (23,200,000 naira) at the time of planning, whereas the exact actual amount could not be confirmed in documents. However, per the interview survey results with Oyo SUBEB, it was determined that the budget was allocated and executed almost as planned.¹⁰

3.2.2.2 Project Period

The actual project period¹¹ was 22 months between September 2014 and June 2016, compared to the 21 months in the original plan. This timeframe slightly exceeded the plan¹² (104% of the plan). The reason for the extension of the project period was because there were more bidding companies than expected, so it took time to review, negotiate and obtain approval. The subsequent construction period was as planned.

Although the project period was slightly longer than planned, the project cost was as planned and the output exceeded the plan. Therefore, efficiency of the project is high.

⁹ Based on the data from 24 of the 30 target schools.

¹⁰ According to the interview with SUBEB, Oyo State allocated and executed the budget (22,800,000 naira) for the implementation of the project. Additional budget was subsequently allocated. Thus, more than 22,800,000 naira was allocated and executed. The exact amount of the budgetary input is not known as there is no document confirming the amount of the additional budgetary input.

¹¹ The project period includes detailed design, tender period, and installation work period.

¹² The number of days of substantial excess was seven days (0.2 months).

3.3 Effectiveness and Impacts¹³ (Rating: ②)

3.3.1 Effectiveness

3.3.1.1 Quantitative Effects (Operation and Effect Indicators)

(1) Number of pupils enrolled in the target schools

By constructing new classrooms in this project, at the time of the outline design, the number of pupils enrolled in the target school was expected to increase from the baseline of 26,880 in 2013 to 30,000 by 2019, three years after the completion of the project. In this evaluation, the baseline and target values were redefined for the 30 target schools after the scope change of the project. Indicator 1 (a) in Table 3 shows the redefined baseline and target values, as well as the actual values obtained from the executing agency, Oyo SUBEB. As for Indicator 1 (b), for 26 target schools where data on the number of pupils were available directly, the redefined baseline value and target value, as well as actual value are shown.

For the actual value of the number of pupils in the target schools, it was confirmed that there was a significant gap between the data obtained from the schools and the data obtained from Oyo SUBEB's Educational Management Information System (hereinafter referred to as EMIS).¹⁴ The reliability of the data obtained from the schools, which are the actual educational service providers, can be considered relatively higher than the data obtained from Oyo SUBEB. Therefore, in this evaluation, the actual value (b) of school-level data was analysed instead of EMIS data. As a result, it was found that the actual value did not reach the target value. However, since the baseline value is also based on the data obtained from Oyo SUBEB,¹⁵ the reliability of the baseline value is also questionable. The baseline value is likely to have been greater than the actual numbers. Therefore, it is presumed that there was a certain degree of effect in increasing the number of pupils although the actual value did not reach the target value. In addition, in the qualitative survey, some teachers mentioned that their numbers of pupils were increasing compared to other schools.

(2) Number of pupils per classroom in the target schools

For this indicator, the actual value could not be obtained from the same data source as the baseline value (Oyo SUBEB). The school-level data of 15 schools were analysed. As a result, the number of pupils per classroom has decreased significantly from a baseline of 112.5 to 65 at the time of the ex-post evaluation. However, as with Indicator 1, there is doubt about the reliability of the data since the baseline value is based on the data obtained from Oyo SUBEB. Therefore, it is not possible to accurately grasp how much the number of pupils per classroom increased or decreased compared to the baseline value. As shown in a later section, the results of a group

¹³ Sub-rating for effectiveness is to be put with consideration of impacts.

¹⁴ Comparing the number of pupils in the base year with the number of pupils in the school year 2018/19 for 26 schools that were able to obtain data, in 14 out of 26 schools, the actual values were below the baseline values. In addition, when comparing the actual values obtained from schools with EMIS data, 19 out of 26 schools had fewer pupils enrolled than EMIS data. There was a difference of 13,936 pupils in the 26 schools.

¹⁵ Preparatory survey report.

interview of teachers in a qualitative survey showed that the number of pupils per classroom was not decreasing but rather increasing. Therefore, it cannot be assessed that the number of pupils per classroom was decreasing compared to the time of planning.

Table 3 Baseline Values, Target Values, and Actual Values of Operation and Effect Indicators

		Baseline	Target	Actual
		2013	2019	2018/2019
			3 Years After Completion	3 Years After Completion
Indicator 1 Number of pupils enrolled in the target schools	(a)	24,301	26,280	41,277
	(b)	21,423	22,620	21,700
Indicator 2 Number of pupils per classroom in the target schools		112.5	60	65.0
(Reference indicator ¹⁶) Number of classrooms available in the target schools		163	343	303

Source: Ex-ante evaluation paper, documents provided by the executing agency, questionnaire responses from the target schools and interview survey results with the target schools.

Note: Indicator 1 (a) shows the baseline and target values set based on the redefined 231 classrooms constructed in 30 target schools,¹⁷ as well as the actual value of pupils in the target schools obtained from OYO SUBEB,¹⁸ the executing agency. The target value is calculated as follows: the number of classrooms available (438) x the target number of pupils per classroom (60) at the target schools.

Indicator 1(b) shows the baseline and target values set based on the number of existing classrooms at the time of planning (173) and the number of classrooms constructed by the project (204) for the 26 target schools for which data on the number of pupils were available, as well as the actual value of pupils in the target schools obtained from the target schools. Therefore, the sources of the baseline and actual values are different. Similarly, for Indicator 2, the sources of the baseline and actual values are different. The baseline value was provided by Oyo SUBEB and the actual value by the target schools (15 schools). As a reference indicator, the indicator shown in the *Preliminary Evaluation Document Based on the Government Policy Evaluations Act* are stated. For this indicator, the sources of the baseline and actual values are also different. The baseline value was provided by the executing agency (Oyo SUBEB) and actual value by the target schools (24 schools).

¹⁶ Indicators set in the *Ex-ante Evaluation Paper Based on the Government Policy Evaluations Act*.

¹⁷ At the time of the outline design survey, the target schools were 36 schools, and the baseline and target values were set based on this plan in the Ex-ante evaluation paper. Therefore, the baseline and target values were redefined in this evaluation.

¹⁸ EMIS 2018/2019 data.

Table 4 Target Schools which Provided the Actual Data for Operation and Effect Indicators
Shown in Table 3

	School	Local Government Authority (LGA)	Indicator 1 (a)	Indicator 1 (b)	Indicator 2	Reference indicator
Visited target schools						
1	EBENEZER ANGLICAN SCH.	AKINYELE	○	○	○	○
2	L.A PRY. SCH. OKEOLOLA (SCH-3)	ATIBA	○	○	○	○
3	CHRIST CHURCH SCH. I AKINFENWA	EGBEDA	○	○	○	○
4	C.P.S I AYEPE	EGBEDA	○	○	○	○
5	ISLAMIC MISSION PRY. SCH. I & II AGUGU	IBADAN NORTH EAST	○	○	○	○
6	RATIBI MOSLEM P.S ODINJO I II	IBADAN SOUTH EAST	○	○	○	
7	ST LUKE DEMONSTRATION SCHL MOLETE IBADAAN I&II	IBADAN SOUTH EAST	○	○	○	○
8	I.M.G. PRIMARY SCHL OLUBADAN I II III	IBADAN SOUTH EAST	○	○	○	
9	I.M.G. PRY. SCH. JOYCEB. OKE-ADO	IBADAN SOUTH WEST	○	○	○	○
10	BAPTIST PRY. SCH. MAYA LANLATE	IBARAPA EAST	○	○	○	○
11	ST. PETER'S PRY. SCH. APETE	IDO	○	○	○	○
12	L.A DEM. PRY. SCH.	ISEYIN	○	○	○	○
13	I.D.C. BASIC SCH. AKOBO	LAGELU	○	○	○	○
14	ST. DAVID'S PRY SCHL AGBOYIN	OGBOMOSO NORTH	○	○	○	○
15	ST. MICHEAL ANG. RCM ARAROMI	OYO EAST	○	○	○	○
Sub total			15	15	15	13
Non-visited target schools						
16	ISLAMIC MISSION SCH. MONIYA I II III	AKINYELE	○	○		○
17	ABADINA PRY. SCH. U.I	IBADAN NORTH	○			
18	COMM. PRY. SCH. I - IV AYEKALE IBADAN	IBADAN NORTH EAST	○			
19	ST. LEO'S CATHOLIC SCHOOL	IBADAN SOUTH EAST	○	○		○
20	I.M.G. PRY. SCH. LAGOS BYE PASS	IBADAN SOUTH WEST	○			
21	METHODIST SCHOOL III	IBARAPA CENTRAL	○	○		○
22	BAPTIST PRY. SCH.I IGBOORA	IBARAPA CENTRAL	○			
23	ST. MARY'S (RCM) PRY. SCH. I	ISEYIN	○	○		○
24	ST. AUGUSTINE R.C.M. AKINSAWE	LAGELU	○	○		○
25	AREAGO BASIC PRY. SCH.	OGBOMOSO NORTH	○	○		○
26	ONISAPA C.P.S I	OGBOMOSO SOUTH	○	○		○
27	MOLETE D.C. PRY. SCH. III	OGBOMOSO SOUTH	○	○		○
28	BAPTIST PRY SCHL II OTAMOKUN	OGO OLUWA	○	○		○
29	ST. PHILIPS PRY SCH FASOLA	OYO WEST	○	○		○
30	COMM. BASIC SCH. KEEWO	SURULERE	○	○		○
Sub total			15	11	0	11
Total			30	26	15	24

Source: Field survey results

3.3.1.2 Qualitative Effects (Other Effects)

(1) Improvement of learning environment at the target schools

In this evaluation study, the evaluator visited 15 out of 30 target schools and conducted group interviews with 46 teachers, 151 male pupils in 6th grade and 152 female pupils in 6th grade. Information on qualitative effects was gathered and analysed.

All teachers (46 teachers in 15 schools) responded that the classrooms constructed by this project were well ventilated and bright. In addition, the teachers mentioned that the indoor temperature of the constructed classrooms was kept lower than that of the other classrooms, so the learning environment was better and the motivation of pupils to learn was higher. Additionally, all 43 valid teacher respondents¹⁹ responded that the classrooms



Learning at a target school (I.M.G. PRY. SCH. JOYCEB. OKE-ADO)

constructed in this project were easier to manage than other classrooms and that pupils could listen to the classes better.

Eighty-one male pupils (91%) of 89 valid respondents²⁰ and all 103 valid girl respondents responded that they were now able to listen to classes better than before the project was implemented.

In addition, more than 90% of pupils responded that they liked the classrooms constructed in this project more than other classrooms. This is because, they said, the rooms are spacious and the room temperature is kept lower and more comfortable.

From the above, it can be said that the learning environment of the target schools has been improved.

(2) Usage status of toilets at the target schools

All teachers responded that both boys and girls use the toilets in the school. All 141 valid boy respondents and 138 (92%) of the 150 valid girl respondents responded that they used the school's toilets. However, in one school, the toilets were not used because there was no water for the toilets. Of the 15 schools, six schools have locked the toilets to prevent trespassers from using them. From the above, it can be said that there is generally no problem in the usage situation of toilets in the target schools.



Toilets used at schools cleanly
CHRIST CHURCH SCH. I
AKINFENWA

¹⁹ Teachers who could compare the target classrooms with other classrooms were selected by the evaluator. However, three teachers in one school were unable to make comparisons because all pupils study in the classrooms constructed by the project at the time of ex-post evaluation.

²⁰ The target pupils were pupils studied at the classrooms constructed by the project at the time of ex-post evaluation who had been learning at the schools before project implementation.

3.3.2 Impacts

3.3.2.1 Intended Impacts

(1) Quantitative Effects (Access to Primary Education)

As shown in Table 5, at the time of the ex-post evaluation, enrolment, advancement and dropout rates in Oyo State have generally improved from the time of the ex-ante evaluation, indicating that access to primary education has improved.

Table 5: Trends in Educational Indicators in Oyo State

		2014/2015	2015/2016	2016/2017	2017/2018	2018/2019
Gross enrolment rate (%)	Total	134.62*	91.04	95.32	98.02	99.03
	Boys	133.66*	88.54	94.36	97.61	99.04
	Girls	135.59*	89.73	96.28	98.42	99.02
Net enrolment rate (%)	Total	-	-	89.62	96.77	98.58
	Boys	-	-	89.13	95.73	98.48
	Girls	-	-	90.11	97.81	98.68
Secondary school advancement rate (%)	Total	92.50	90.00	91.45	94.90	96.75
	Boys	91.00	88.00	90.30	94.60	96.10
	Girls	93.00	92.00	92.60	95.20	97.40
Dropout rate of primary education at 1st grade (%)	Total	1.53	1.48	3.60	1.10	0.95
	Boys	1.38	1.42	3.40	1.13	0.91
	Girls	1.67	1.53	3.80	1.17	0.98
Dropout rate of primary education at 3rd grade (%)	Total	1.37	-	2.90	1.07	0.81
	Boys	1.41	-	2.89	1.11	0.81
	Girls	1.32	-	2.91	1.03	-
Dropout rate of primary education at 6th grade (%)	Total	1.47	1.50	2.71	1.28	1.37
	Boys	1.33	1.41	-	1.21	1.41
	Girls	1.61	1.58	2.71	1.34	1.32

Source: Questionnaire response from Oyo SUBEB

Note: Data source for *is Federal Ministry of Education data (Nigeria Digest of Education Statistics).

(2) Qualitative Effects

(a) Improvement of classroom management (ease of teaching) by optimizing the number of pupils per class

On the reduction of the number of pupils per class, all 46 teachers who participated in the group interview of the qualitative survey responded that the number of pupils per classroom increased compared to before project implementation. As mentioned above in the effectiveness analysis, the data showed that the number of pupils per classroom was decreasing, but the results of the qualitative survey did not confirm a decrease in the number of pupils. The factor that caused such a difference is assumed to be the inconsistency between Oyo SUBEB's educational

administrative data and school-level data (see “Quantitative Effects” in the Effectiveness section).

The airflow, daylight, and indoor illumination of the classrooms built in this project are well secured, (see “Qualitative Effects” in the Effectiveness section). This comfort derived from building construction has changed the pupils’ learning attitudes, resulting in a positive impact on the ease of teaching management.

From the above, the results of qualitative surveys did not confirm a decrease in the number of pupils per class, but the improvement of classroom management was confirmed through the improvement of ventilation and brightness in classrooms, etc.

(b) Enhancement of pupils’ motivation to learn by improving the learning environment

In the qualitative survey, all valid boy respondents²¹ (131) responded that they liked to go to school and had never felt that they would rather not go to school. When the same question was asked regarding their second-grade year before the project implementation, 30 pupils (23%) responded that they did not like going to school, and 46 pupils (35%) responded that they felt they did not want to go to school at the time.

All valid girl respondents (130) responded that they liked going to school, and 128 (98%) responded that they had never felt that they would rather not go to school. When the same question was asked regarding their second-grade year before the project implementation, 37 pupils (28%) responded that they did not like going to school, and 28 (22%) responded that they felt that they did not want to go to school at that time.

Almost all of the boys and girls responded that the classrooms constructed in the project were more comfortable than other classrooms. Specifically, they mentioned that the classrooms were spacious; that room temperature was kept comfortable; and that the building, blackboards, desks, and chairs were clean. From above, the qualitative survey results confirmed that pupils’ motivation to learn (willingness to go to school) was increased by comparing their responses before and after the implementation of this project. In addition, more than 90% of the pupils responded that the classrooms constructed in this project were comfortable compared to other classrooms. Therefore, enhancement of pupils’ learning motivation through the improvement of their learning environment was confirmed.

(c) Improvement of girls’ willingness to go to school through the construction of toilets by gender

Nine of 15 schools investigated in the field survey had no toilets before the project was implemented, and pupils had to excrete in old school buildings or outdoors.²²

As indicated in the preceding section, 37 girls (28 %) mentioned that they did not like going to school in their second-grade year before the classrooms were constructed, and 28 (22 %) responded that they did not want to go to school at that time.

²¹ Pupils in the 5th or 6th grade using the classroom constructed in this project were extracted.

²² In the remaining six schools, existing toilets were used.

mentioned that they sometimes felt that they did not want to go to school at that time. The reason for these was that the school facilities and equipment (classrooms, desks, chairs, and toilets) were not as well maintained as they were at the time of the ex-post evaluation, and the number of pupils who mentioned toilets was extremely low, only two or three in total.

Therefore, the improvement of girls' willingness to go to school due to the construction of separate toilets for boys and girls was not clearly confirmed from the qualitative survey results.

3.3.2.2 Other Positive and Negative Impacts

(1) Impacts on the Natural Environment

The impact on the natural environment was not confirmed.

(2) Resettlement and Land Acquisition

It was confirmed that there was no resettlement or land acquisition.

(3) Unintended Positive/Negative Impacts

In the group interviews with teachers in qualitative surveys, teachers in the target schools mentioned that parents' willingness to enrol their children to the target schools had increased with the construction of new classrooms. Therefore, it is assumed that parents are aware that the learning environments of the target schools are good relative to other schools.

From the above, it is assumed that the improved learning environment in the target schools has had the impact on attracting more children to enrol in the target schools than in the non-target schools.

The quantitative effects of effectiveness cannot be compared clearly with the baseline and actual values, and some effects are not confirmed from the results of the qualitative surveys, so it can be said that this project has achieved its objectives to some extent. Therefore, the effectiveness and impacts of the project are fair.

3.4 Sustainability (Rating: ②)

3.4.1 Institutional/Organisational Aspect of Operation and Maintenance

In the outline design survey, roles and responsibilities for the operation and maintenance of the primary schools constructed in this project were planned as follows:

- Oyo SUBEB would be responsible for ordering and supervising large-scale school repairs and renovations. UBEC would be responsible for conducting comprehensive management and supervision of schools.

- School-based management committees (hereinafter referred to as SBMCs), LGEAs and communities would be responsible for small-scale repairs, improvements and maintenance of the target schools.

According to the field survey, there was no significant change in the main roles and

responsibilities of each relevant organisation compared to the time of the outline design survey. UBEC only conducts primary school construction, large-scale renovation and site construction. Oyo SUBEB is responsible for the operation and maintenance of school facilities after construction or renovation. LGEAs conduct school management at a daily level.²³ Regarding SBMCs, it was confirmed that committees were formed in 15 schools visited during the field survey, but their functions were limited due to the fact that the system does not allow for the collection of maintenance fees at the time of ex-post evaluation.²⁴

There was no significant change in the roles, responsibilities or personnel involved in the operation and maintenance of relevant organizations compared to the time of the outline design survey. In addition, no issues were identified in terms of hindrance to operations and maintenance due to a lack of personnel.

From the above, it can be said that under UBEC, Oyo SUBEB and LGEA, institutional/operational aspects of the operation and maintenance of the target schools constructed in this project have been secure to a certain extent.

3.4.2 Technical Aspect of Operation and Maintenance

As part of the soft components of this project, maintenance manuals and monitoring manuals were created for the target schools. These manuals state that the target schools should be maintained in accordance with the maintenance manual, with Oyo SUBEB and LGEA monitoring the schools in accordance with the monitoring manual. In addition, they also stated that the schools should report their facilities' maintenance status to Oyo SUBEB on a semester basis²⁵ through the LGEA inspectors and that Oyo SUBEB would then summarize all schools' reports to the JICA Nigeria office once a year.

At the time of this evaluation, a copy of the maintenance manual was not identified at any of the 15 schools visited in the field survey; thus, the manual was not used. For Oyo SUBEB and LGEAs,²⁶ only two LGEAs had copies of the monitoring manual. It can be said that the manuals were mostly not utilized.

For the inspection sheet and evaluation sheet (hereinafter referred to as "monitoring forms") prepared in the software component and included in the manual, only four of the 12 LGEAs visited during the field survey were found to have kept the monitoring forms. However, when checking with the LGEA inspectors how to fill out the monitoring forms, the inspectors could not provide a clear response. The LGEA inspectors said that they regularly visit schools and try to grasp the issues of each school, but they also said that the monitoring forms created as part of this

²³ Questionnaire responses from UBEC, Oyo SUBEB, and LGEAs and the result of the interview with UBEC, Oyo SUBEB and LGEAs.

²⁴ Oyo SUBEB explained that the SBMCs' capacity to manage funds is insufficient and they are unable to fulfil accountability requirements.

²⁵ In Nigeria, there are three semesters in primary school.

²⁶ In the post-evaluation field survey, 12 LGEAs were visited and interviewed.

project's soft component were not used for non-target schools. Therefore, it can be said that at the time of the ex-post evaluation, Oyo State has multiple monitoring systems in place for primary school operations and maintenance. Oyo SUBEB mentioned that they were aware of the usefulness of the monitoring forms and did not feel the need for special revision of the monitoring forms created by this project. Oyo SUBEB explained that they did not utilize the monitoring forms due to budget shortages.²⁷ Although there is an intention to use the monitoring forms, no special action has been taken at the time of the ex-post evaluation. In addition, it could not be confirmed that Oyo SUBEB had submitted any annual reports to the JICA Nigeria office.

Based on the above, it can be said that the monitoring forms created in the soft components were not properly utilized. Workshops²⁸ and seminars²⁹ were held as further soft components for the four model schools.³⁰ About 120 people participated in the workshops held at the model schools. The *Soft Component Final Report* indicates that many seminar participants had a good understanding of the purpose of the manuals. However, the LGEA staff and school principals at the time of ex-post evaluation have been largely replaced from the original members because of personnel changes; therefore, fewer staff members participated in the seminar and the workshop. This is assumed to be another reason why the use of monitoring forms has been limited. In addition, as for the technical assistance from LGEA, it is confirmed that nine of the 12 LGEAs provided technical assistance to the target schools, while the remaining three LGEAs did not provide technical assistance to the target schools.

As for the technical aspect of operation and maintenance, the manuals and monitoring forms created in the soft components were not utilized, and this can be said to be a challenge in this regard.

3.4.3 Financial Aspect of Operation and Maintenance

As already mentioned, UBEC is only responsible for large-scale repairs, so the budget was not allocated for schools' facilities maintenance costs. Currently, SBMCs do not collect maintenance fees. Accordingly, the costs associated with the operation and maintenance of the target schools are primarily allocated through Oyo SUBEB.³¹

Table 6 shows Oyo SUBEB's total budget and the amount allocated to monitoring and evaluation, and *running grants* to schools. The difference between budget and expenditure is large,

²⁷ According to Oyo SUBEB, if three LGEA investigators conduct monitoring each school every semester, 1,485,000 naira (approx. 3,800 USD) per semester is required. This cost includes the printing cost of monitoring forms, transportation expenses, and investigators' daily allowances. As shown in the section below, Oyo SUBEB has allocated a budget for monitoring and evaluation, but its budget is unable to cover the costs listed above.

²⁸ 120 participants participated.

²⁹ About 150 staff members of Oyo SUBEB and LGEAs, school principals and SBMC members participated.

³⁰ Maintenance activities had been practised first at the model schools. Then, with the cooperation of Oyo SUBEB and LGEAs, the manual was developed.

³¹ Education trust funds have been limited to higher education since several years ago. Such funds will not be allocated to the maintenance costs of the target schools in primary education. (interview with UBEC)

indicating that the budget is unreliable. Meanwhile, in Oyo State has started allocating grants to schools, which are budgets for school maintenance, since the fiscal year 2019. Since 2019, Oyo State has welcomed a new state governor.³² The governor's emphasis on basic education has been reflected in the state's development policies in the education sector.³³ The governor's term of office is usually four years, and it is assumed that the policy will be maintained for the next three years.

Table 6: Oyo SUBEB Budget

		Total	Monitoring and evaluation	Running grants to schools
FY 2017	Budget	100,000,009	15,000,000	-
	Expenditure	10,207,189	424,000	-
FY 2018	Budget	22,500,000	-	-
	Expenditure	28,729,352	-	-
FY 2019	Budget	202,812,500	600,000	125,373,900

Source: documents provided by Oyo SUBEB. Unit: Naira

Regarding the actual state of operation and maintenance costs at the target schools, in the interviews conducted during the field study 14 out of 15 schools responded that they did not have budget for maintenance, and the principals and teachers of 10 out of 15 schools have spent their own money on maintenance, which includes the purchase of consumables, installation of fences, etc.

From the above information, it can be said that there are some issues in the financial aspect of operation and maintenance.

3.4.4 Status of Operation and Maintenance

In the ex-post evaluation, the evaluator and the local assistant conducted a field survey of 15 schools, or half of all the target schools, and confirmed the operational and maintenance status of the target schools. As a result, the problems shown in Table 7 were identified (several problems were identified in multiple schools). About 90% of the classrooms and toilets constructed in this project were still in use without problems, and their maintenance status was generally good.

³² Mr. Oluseyi Abiodun Makinde.

³³ Source: interview with Oyo SUBEB.

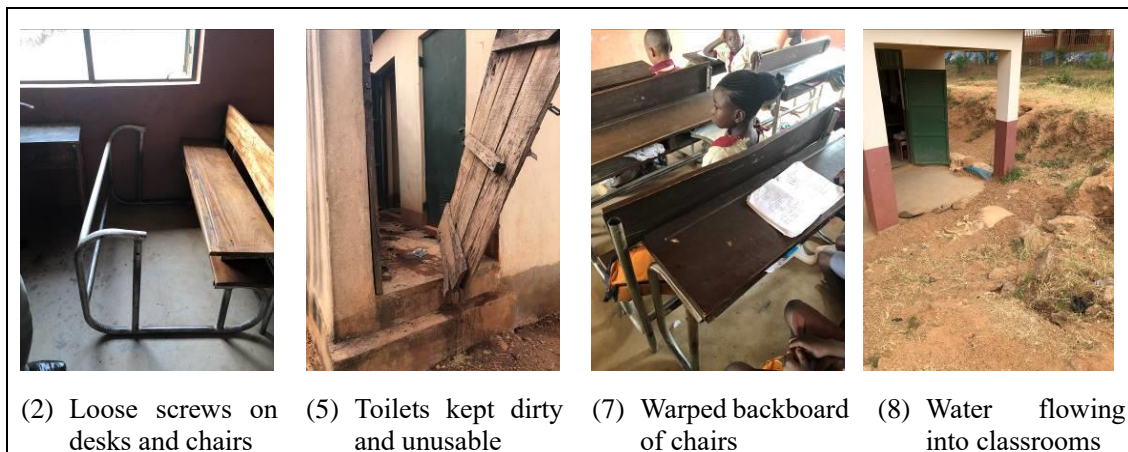
Table 7: Problems in the Target Schools (15 Schools)

	Target school	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	EBENEZER ANGLICAN SCH.		✓						
2	L.A PRY. SCH. OKEOLOLA (SCH-3)								
3	CHRIST CHURCH SCH. I AKINFENWA	✓							
4	C.P.S I AYEPE					✓			
5	ISLAMIC MISSION PRY. SCH. I & II AGUGU								
6	RATIBI MOSLEM P.S ODINJO I II				✓				
7	ST LUKE DEMONSTRATION SCHL MOLETE IBADAAN I&II				✓	✓	✓		✓
8	I.M.G. PRIMARY SCHL OLUBADAN I II III			✓		✓	✓	✓	
9	I.M.G. PRY. SCH. JOYCEB. OKE-ADO								
10	BAPTIST PRY. SCH. MAYA LANLATE								
11	ST. PETER'S PRY. SCH. APETE								
12	L.A DEM. PRY. SCH.								
13	I.D.C. BASIC SCH. AKOBO		✓	✓					
14	ST. DAVID'S PRY SCHL AGBOYIN								
15	ST. MICHEAL ANG. RCM ARAROMI								✓
Total		1	2	2	2	3	2	1	2

Problems			
(1)	Roof leak in the classroom	(5)	Toilets kept dirty and unusable
(2)	Loose screws on desks and chairs	(6)	Termite damage to desks and chairs
(3)	Loose screws on classroom doors and windows	(7)	Warped backboard of chairs
(4)	Breakage of classroom windows	(8)	Water flowing into classrooms

Source: Field survey results

(Note) (2) Loose screws on desks and chairs were visually confirmed with fewer than 10% of the desks and chairs. (4) Classroom window breakage was due to stones thrown from outside. (6) Termite damage was confirmed with fewer than 0.5% of desks and chairs. As for (5), in schools where some of the toilets were not kept clean and were difficult to use, it was mentioned that it was difficult to manage the toilets closest to the outer wall because people outside the school used the toilets. In fact, some of the toilet booths were difficult to use, and other toilet booths were properly managed. (7) Warped backboard of chairs was not identified at the time of the defect inspection, and it is assumed that the warping occurred because the boards were not sufficiently dry or the wood material was different from that of the other schools. (source: interview results with the project consultant). (8) Water flowing into classrooms was confirmed to have been caused by rainwater inflow during the rainy season in one classroom in each of the schools where the problem was identified. This problem arises when the floors of the classrooms are built below ground level.



In the 15 schools surveyed, the classrooms were generally maintained in a usable condition, and the principals of the 14 target schools indicated that cleaning of classrooms, toilets, and grounds was carried out daily.³⁴ In fact, when the evaluator and local assistant visited the target schools, the classrooms and toilets were generally cleaned and kept clean, except for the toilets of the target school where the problem was identified as shown in Table 7.

As mentioned in the previous section, in two-thirds of the target schools surveyed, the principals and teachers funded maintenance cost for the schools themselves. Self-help efforts were confirmed at the school level. In addition, there were schools for which the construction of necessary facilities (wells and fences) were carried out by the local communities. There were also schools that did not have wells but received water from local residents in their neighbourhoods. In such schools, communities and schools shared issues related to the operation and maintenance of the schools.

Therefore, although there are some issues, it can be said that the operation and maintenance status at the time of the ex-post evaluation is generally good.

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

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

This project aims to improve the learning environment by constructing primary school facilities and providing educational furniture, thereby contributing to the improved quality of and access to primary education in Oyo State, Nigeria. As this objective was consistent with the development plan and development needs of Nigeria as well as Japan's ODA policy, the project relevance is high. The project cost was as planned, but the project period was slightly longer than planned due to considerations for work, etc., as the number of bidders was greater than expected. As for outputs, in comparison with the plan, six additional classrooms were constructed, and educational furniture for classroom use was additionally procured. Therefore, the efficiency of this project was high. For quantitative effects – the number of pupils enrolled in the target schools and the number of pupils per classroom in the target schools, the reliability of the baseline data is insufficient. It was not possible to clearly compare the baseline value with the actual value. In addition, since some effects were not confirmed from the results of the qualitative surveys conducted in this evaluation, it can be said that this project achieved its objectives only to some extent. Therefore, the effectiveness and impacts of the project are fair. Some minor problems have been observed in terms of the technical and financial aspects and current status. Therefore, sustainability of the project's effects is also fair.

³⁴ The remaining school responded that the classroom was cleaned once a week and the restrooms were cleaned every day.

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

4.2 Recommendations

4.2.1 Recommendations to the Executing Agency

(1) Identify issues of the current monitoring system and promote utilization of monitoring forms

Since the monitoring forms created in the project are not used by schools other than the target schools, at the time of ex-post evaluation there were multiple monitoring systems in Oyo State. In addition, monitoring forms are not fully utilized at the target schools. Oyo SUBEB, the executing agency, is aware of the usefulness of the monitoring forms, so it is recommended that their utilization be promoted throughout Oyo State. By implementing this initiative, it is also possible to avoid situations where multiple monitoring systems coexist.

Specifically, it is proposed that after clarifying the activities and budgets necessary for the use of the monitoring forms, they should be prioritized within the range that can be implemented in the current budget and then conduct the monitoring using the monitoring forms. If there is a budget shortage and it seems difficult for LGEA inspectors to visit all schools, another method of monitoring is to selectively decide which schools to visit, and then monitor the remaining schools through telephone interviews or sending messages via mobile devices.

In that case, it is important to fully discuss with the stakeholders what the issues are in the current monitoring system and whether the use of monitoring forms can solve them, and then to promote the use of the monitoring forms after understanding the information provided in the manuals.

(2) Share issues and needs among stakeholders in the target schools

In some of the target schools, the construction of necessary facilities (wells and fences) was being carried out by the local communities. There were also schools that did not have wells but received water from local residents in their neighbourhoods. In such schools, issues were shared with the community. Therefore, it is suggested that each school identify its current issues, identify what are needed, and share those issues and needs with the local community through SBMC to consider solutions. This is expected to lead to effective budget allocation, including grants to schools, by sharing these issues and needs with LGEAs, as well as the Oyo SUBEB through the LGEAs. In addition, it would be more effective if cases where issues have been resolved through community engagement (good practices) were shared among schools through LGEA and Oyo SUBEB. It is desirable that the above two recommendations be implemented promptly.

4.2.2 Recommendations to JICA

It is recommended that JICA provide useful reference information and advice to the executing agency and support the executing agency in realizing recommendations (1) and (2) above. Specifically, for (1), it is assumed that the provision of reference information such as

monitoring systems of similar JICA projects in other countries regarding the consideration of monitoring implementation methods based on the budget of the executing agency and the local communication situation will be useful. For (2), it is expected that JICA provides good practices from their existing projects, such as identifying needs at the school level and methods of sharing information among stakeholders. In addition, these strategies will be more effective if JICA can provide technical advice from time to time.

4.3 Lessons Learned

Development of a monitoring system that conforms to the actual situation of the partner country

Although a monitoring system for target schools was introduced in a local governmental organisation in Africa with a limited budget, this evaluation identified the challenge that the monitoring system using the monitoring form developed by the project was not realised. The consultant obtained an agreement on the use of the monitoring forms at the time of implementation of the soft component and assumed that the monitoring system would be expanded beyond the target schools after they began using the monitoring forms. However, this was not actually realised; as a result, two different monitoring systems coexist. The monitoring system might have been more feasible if, prior to the implementation of the soft component, the consultant had fully consulted with the executing agency, became familiar with the existing monitoring system and its budget allocation, and proposed a new monitoring system in a form that could be incorporated into the existing system. In addition, it is necessary to understand the frequency of personnel changes when attempting to introduce a new monitoring system to target schools and subsequently expanding it to other schools. If personnel changes are frequent, then at the time of implementing the soft components, it is essential that all local administrative organisations and schools covered by the executing agency, as well as the local administrative organisations and schools targeted by the project, are informed of the monitoring system to be introduced and ensure that they understand the monitoring system.

Reliable information acquisition when planning

As indicated in the Effectiveness section, there are challenges to the accuracy of educational administrative data of the executing agency. It is desirable to collect information that is as accurate as possible when calculating baseline values of the operational indicators during the ex-ante project evaluation. Specifically, if there are multiple sources of information on operational indicators, it is desirable to check those sources as much as possible and obtain more accurate information. If issues are identified with the accuracy of the data held by the executing agency, the best course of action is to obtain and use the information at the end of the educational service

provider (school).³⁵

³⁵ In fact, another aid organisation (DFID) has acquired baseline values at the school level and conducted their projects.

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.

1. Project Description



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”.

1.2 Project Outline

Overall Goal		Maternal and Neonatal Health (MNH) services in UWR is continuously improved
Project Purpose		Improve Maternal and Neonatal Health (MNH) services utilizing CHPS system in UWR
Outputs	Output 1	Capacity building on MNH services improved
	Output 2	Systems for MNH services strengthened
	Output 3	Community mobilization and support systems on MNH strengthened
Total cost (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/ Organizations	Ministry of Health
Consultant in Japan	IC Net Limited
Related Projects	<p>Technical Cooperation</p> <ul style="list-style-type: none"> - “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) <p>Grant Aid Cooperation</p> <ul style="list-style-type: none"> - “The Project for the Development of CHPS Infrastructure in the Upper West Region” (May 2012) <p>Other International Organizations and Donors</p> <ul style="list-style-type: none"> - “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.

1	Training: Continue facilitative supervision (hereinafter referred to as FSV), strengthen the contents of safe motherhood training and introduce CHPS training components according to the training needs of midwifery schools
2	Equipment 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 equipment
3	FSV: Provide orientation to newly assigned staff and plan and implement FSV in an integrated way with other programmes efficiently and continuously
4	Maternal 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 polyclinics
5	Engagement of DAs: Accelerate the engagement of DAs and take initiatives for the governance of CHPS
6	Financing: Develop an annual financial plan for health services provision
7	For better-quality MNH services in UW Region: Assign paediatricians and obstetricians to regional and district hospitals, procure medical equipment and consider transportation for obstetric emergencies
8	Horizontal 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

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: ③³)

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)

Table 1 Achievement Status of Outputs until Project

Output	Indicator	Achievement	Achievement Level	
Output 1: Capacity building on MNH services improved (◎)	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)	◎
	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	◎
	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	◎
	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).	◎
	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	○
Output 2: Systems for MNH service strengthened (○)	2-1	Referral/counter-referral is Enhanced.		◎
	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	◎
	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)	◎
	2-2	FSV is strengthened.		○
	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	◎
	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.	△
	2-3	Maternal and Neonatal Death Audit (MNDA) is strengthened.		○
	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)	○
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.	○	
Output 3: Community mobilization and support systems on MNH strengthened (◎)	3-1	CHOs are trained on Community Mobilization.		◎
	3-1-1	By 2015, target number of trainee completed CHO refresher training on Community mobilization is achieved. CHO:341	- 376 in total	◎
	3-1-2	By 2015, number of CHPS zones with Annually Updated Community Health Action Plan (CHAP) is increased to 80.	- 140 in total	◎
	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.	○
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	◎	

Source: Project Completion Report P14-17

Remarks: The marks shown in the Achievement Level column means the followings.

◎ Achieved ○ Almost achieved △ Neither achieved nor unachieved × Not much achieved ×× Not achieved at all

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

Table 2 Achievement of Project Purpose by Project's Completion

Project Purpose	Indicator	Achievement	Achievement Level																		
Improve maternal and neonatal health (MNH) services utilising CHPS system in UWR. (High)	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)	High																		
	2	Proportion of clients receiving skilled delivery in UW Region is increased to 70%. 62% (institutional delivery, DHIMS2 data) (→88.6% of the target value)	High																		
	3	Proportion of clients receiving first PNC within 48 hours is increased to 75% and second PNC within 7 days after delivery is increased to 75% 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																		
	4	Coverage and correct use of Partograph and postpartum observation sheet for the first 6 hours amongst applicable cases at SDHT improve to 90%(coverage) and 80% (unit: %) The achievement is shown below. (unit: %)	Medium																		
	<table border="1"> <thead> <tr> <th></th> <th>Coverage</th> <th>Correct Use</th> </tr> </thead> <tbody> <tr> <td>Partograph</td> <td>90</td> <td>80</td> </tr> <tr> <td>Postpartum Observation Sheet</td> <td>90</td> <td>80</td> </tr> </tbody> </table>		Coverage	Correct Use	Partograph	90	80	Postpartum Observation Sheet	90	80	<table border="1"> <thead> <tr> <th></th> <th>Coverage</th> <th>Correct Use</th> </tr> </thead> <tbody> <tr> <td>Partograph</td> <td>82</td> <td>85</td> </tr> <tr> <td>Postpartum Observation Sheet</td> <td>51</td> <td>85</td> </tr> </tbody> </table>		Coverage	Correct Use	Partograph	82	85	Postpartum Observation Sheet	51	85	
	Coverage	Correct Use																			
Partograph	90	80																			
Postpartum Observation Sheet	90	80																			
	Coverage	Correct Use																			
Partograph	82	85																			
Postpartum Observation Sheet	51	85																			

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%.

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

Overall Goal	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 (%)
MNH services in UW Region is continuously improved.	1 Proportion of clients receiving first trimester ANC	90	56.9	63.2	63	70
	2 Proportion of clients receiving skilled delivery in UW Region	85	62	72.9	68.7	80.8
	3 Proportion of clients receiving first PNC within 48 hours and second PNC within 7 days after delivery is increased to 75%	95	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

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.

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

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.

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 Building) after Project Completion

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 ex-post 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 Value (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.

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

	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

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.

Table 9 Planned and Actual Inputs

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 budget amount	Equipment for the project office and training (PC, photocopier machine, cabinets, chairs, generators, flip chart stand), car (4WD), etc.
(4) Local cost	No specific description on budget amount	305 million yen
Japanese Side Total Project Cost	893 million yen	1,100 million yen in total
Ghanaian Side Total Project Cost	Salaries of counterpart staff, facility and land, electricity, water, etc.	Salaries of counterpart staff, facility and land, electricity, water, etc.

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

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.