

Simplified Ex-Post Evaluation for Technical Cooperation Project

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Project Name	The Project for Improvement of Educational Achievement in Science, Technology and Mathematics in Basic Education	March 2010 – December 2010

I Project Outline

Country Name	Republic of Ghana		
Project Period	March 1, 2000-February 28, 2004		
Executing Agency	Ghana Education Service, Ministry of Education, Youth and Sports		
Cooperation Agency in Japan	Hiroshima University		
Total Cost	884 million yen		
Related Projects (if any)	JICA, Project to Support the Operationalisation of the INSET Policy (2005-2008, project purpose is to strengthen operation system at district level for implementation of INSET) JICA, Project for Strengthening the Capacity of INSET Management (2009-2013, project purpose is to establish and reinforce the nationwide management system for implementation of INSET)		
Overall Goal	<u>Long-Term:</u> Student's educational achievement in Science, Technology and Mathematics (STM) at upper primary/Junior Secondary School (JSS) is improved in project area. <u>Short-Term:</u> The educational achievement in STM of upper primary/JSS students who have been taught by STM/INSET-trained teachers is improved in project areas.		
Project Objective(s)	The capacity of STM/INSET-trained teachers for delivering STM (skills, contents) is improved for upper primary/ JSS in the project areas		
Output[s]	1. The existing STM education at upper primary/JSS is reviewed and recommendations are reflected in the Project design. 2. Structured INSET is established in Akuapem North District linked with School-based INSET. 3. INSET Programme is replicated in other Project Areas (Tamale and Sdansi West) 4. Institutionalization of INSET is supported and policy advocacy is implemented 5. Awareness-creation and information-sharing on STM are promoted. 6. Monitoring and Evaluation of INSET are regularized		
Inputs (Japanese Side) Note: At the time of the Final Evaluation		Inputs (Ghana Side) Note: At the time of the Final Evaluation	
Experts	12 for Long term, 21 for Short term	Staff allocated	5 staff
Equipments	54 million yen	Equipments	no data available
Local Cost	143 million yen	Local Cost	7,167 million cedis (i.e. seminar cost, maintenance cost of facilities, etc)
Trainees Received	27 trainees	Land etc provided	Provision of seminar rooms, meeting rooms, operation rooms and teachers' dormitory, etc
Others	N.A.	Others	N.A.

II Result of the Evaluation

Summary of the evaluation
<p>From the time the project was planned through its completion, this project was highly consistent with Ghana's education policies, development needs and Japan's aid policy; therefore, its relevance is high. Although the achievement of the indicators for the Overall Goal has not been confirmed, the project purpose has generally been achieved, and the positive impact on the educational policies of Ghana has been confirmed; therefore, its effectiveness is high. Although the planned project cost was unknown, the other inputs from Japan were provided according to plan, and the expected outputs were achieved during the project period; therefore, efficiency is high. Sustainability is also high because Ghana's Ministry of Education established a unit to expand In-Service Training (INSET) nationwide and is carrying out nationwide expansion programs. In light of the above, this project is evaluated to be highly satisfactory.</p> <p><Recommendations></p> <ul style="list-style-type: none"> • Since the achievement of the indicators for the Overall Goal could not be confirmed at the ex-post evaluation, it is recommended that GES verify and publicly release information on the visible effects of the INSET currently underway, with evidence such as the results of the Basic Education Certification Examination (BECE). In addition, it is recommended that District Education Office (DEO) secure a budget to continue implementing INSET and carrying out monitoring and evaluation activities. On this point, GES should discuss budget planning with DEO as necessary and provide advice on forming an INSET budget. <p><Constraints of this evaluation study></p> <p>This evaluation is a simplified version without a field survey, therefore the evaluation was performed under some constraints as</p>

follows.

- 1) The fact that it does not include data that could be confirmed by direct observation, since the evaluation was based solely on data obtained through document review and questionnaires given to the implementing agency;
- 2) when using data on indicators in the questionnaire responses, we requested the raw data as evidence, but were not able to obtain any;
- 3) the report written at the project's completion did not include enough information on the achievement of the indicators of PDM at the time of the project's completion;
- 4) it was difficult to obtain some of the information because the contact information for the Japanese experts employed in this project could not be ascertained ; and
- 5) due to the lack of a field survey, there was no opportunity to hold discussions with the executing agency regarding the recommendations.

1 Relevance

(1) Relevance with the Development Plan of Ghana

At the time of planning, Ghana Vision 2020, the national development plan, emphasized human resource development as an important issue for national development, and the government has been pursuing the Free Compulsory Basic Education program (FCUBE¹). At the end of the project, the Ghana Poverty Reduction Strategy (2003-2005) mentions the need for INSET to strengthen science education, in addition to the aforementioned measures. Accordingly, this project was consistent with Ghana's development policies from the time it was planned to completion.

(2) Relevance with the Development Needs of Ghana

The government gave priority to the quantitative expansion of basic education, and the attendance rate improved for elementary education, but there were still many issues to be addressed to improve the quality of education. In particular, the low quality of the teachers (insufficient basic academic skills and teaching skills) was a serious issue, and was the primary factor standing in the way of improving children's learning and understanding. This low quality of teachers was attributed to the lack of a systematic INSET system. This project aimed to develop demand-driven teacher training programs at three teacher training schools in the target district, and thus was consistent with Ghana's development needs from the time the project was planned to its completion.

(3) Relevance with Japan's ODA Policy

According to Japan's ODA policy at the time of planning, 'Japanese Country Assistance Program for Ghana in 2000', support for the education sector was positioned as one of the priority areas in the basic human needs sector (support to raise the quality of teachers, augment curriculum, and raise attendance rates), so this project is consistent with Japan's ODA policy from the time it was planned to its completion.

This project has been highly relevant with the country's development plan and development needs, as well as Japan's ODA policy; therefore, it is highly relevant.

2 Effectiveness / Impact

(1) Achievement of Project Outputs and Project Objective(s)

【Achievement of Outputs】 Output 1 (identify the current conditions of science and mathematics education and establish a plan) had been achieved as of the terminal evaluation. As regards Outputs 2 and 3 (development and implementation of INSET model), the INSET package (principal training, training for newly transferred teachers, training for instructors, and training for circuit inspectors, etc.), which was intended to promote training within the school, was developed and verified in all elementary schools in the program region (Akuapem North District, Adansi West District, Tamale Municipal), and the results were reflected in the Manual for Upper Primary and Junior Secondary School Math and Science Teachers. The achievement of the indicators for Output 2 ('All head teachers, circuit supervisors and district teachers support team received INSET orientation' and 'at most 70% of curriculum leaders in the district received INSET training') was not known as of the terminal evaluation, but an expert's final report noted that the specified training had been given to the relevant persons at all of the target schools, so it can be confirmed that the indicators had been achieved by the time of the project's completion. According to the monitoring results when the project was completed, 98% of the teachers who facilitated in-school training sessions were teachers who received instructor training in this project, so we can confirm that the training participants contributed to the promotion of in-school training. Under the activities of Output 4 (support for institutionalization of INSET), INSET manuals were distributed to all schools in the target districts; in addition, the preparation of INSET policy implementation guidelines were supported by the Japanese experts. According to GES, this activity played a major role in bringing about INSET's institutionalization. The achievement status of Output 5 (fostering awareness and sharing information about math and science) is unknown because verified data at the time of project completion could not be obtained. However, according to the results of the terminal evaluation, the project prepared newsletters, pamphlets and calendars to promote the sharing of information on math and science education, and this confirmed that students were more interested in math and science. The indicators for Output 6 (monitoring and evaluation of INSET) were achieved at the time of the terminal evaluation. According to GES, the baseline survey and news assessment survey implemented in this project were beneficial, and these methods are being utilized in current operations.

【Achievement of Project Purpose】 According to the results of the terminal evaluation, as indicated by the results of the survey on teachers' instruction skills and their improvements, a comparison of the instruction skills before and after the training shows a significant improvement in the skills of upper primary and junior secondary school teachers. As of the terminal evaluation, the objective for Indicator (1) "junior secondary school teachers who have received in-service training have the ability to teach mathematics and science in accordance with the project's implementation standards (60% of science teachers and 70% of math teachers exceed the baseline for measuring teaching skills)" had been achieved. However, Indicator (2) "upper primary school teachers who have received in-service training have the ability to teach mathematics and science in accordance with the project's implementation standards (60% of science teachers and 70% of math teachers exceed the baseline for measuring teaching skills)" fell

¹ The main policy goal of the FCUBE program is to provide opportunity for every school-age child in Ghana to receive quality basic education

slightly short of the target, but 55% of science teachers and 67.9% of math teachers exceeded 90% of their respective targets. It is unknown whether a similar survey of teaching skills was carried out when the project was completed. According to GES, the teachers in the target district who participated in INSET were able to actively incorporate child-centered approaches and group activities and excite students' interests. In light of the above, it can be determined that the project purpose was generally achieved.

【Contribution of the Outputs to the Project Purpose】 In this project, INSET packages in the math and science fields were developed based in the teacher training schools in the southern region, northern region and central west region through the achievement of Outputs 1-3. Moreover, Outputs 4 and 5 raised students' and teachers' interest in math and science education and at the same time spread awareness about the institutionalization of INSET among Ministry of Education staff, which helped to establish this policy. Output 6 contributed to the development of a system to ascertain the effect of INSET. Accordingly, it can be said that each of these outputs contributes to the achievement of the project purpose. Contributing factors to the Project Purpose were (1) the dispatch of Japan Overseas Cooperation Volunteers (JOCV) to work in the math and science education sector and (2) non-project grant aid to build a resource center, access roads and worker housing in the target district. However, the insufficient budget of DEO, which had taken on a major role as a result of decentralization, was an impeding factor.

(2) Achievement of Overall Goal, Intended and Unintended Impacts

It is not possible to confirm that the Overall Goal, "improve the math and science skills of children and students in the program region", has been achieved based on the indicators because the results of the Basic Education Certification Examination (BECE), the data for the indicators, could not be obtained. According to the responses to the questionnaire given to GES when the ex-post evaluation was conducted, improvements in teacher quality and the higher performance of students were noted even in regions other than the target district while INSET was being expanded nationwide. In addition, JOCV in the field of math and science teachers were dispatched to upper primary and junior secondary schools in the country, which contributed to the improvement in the quality of teaching skills at the school level.

The institutionalization of INSET by GES was another positive indirect effect. The primary promotional factor was the continuous support for INSET's institutionalization and nationwide expansion even after JICA completed this project.

This project has largely achieved its objectives; therefore, its effectiveness is high.

3 Efficiency

(1) Outputs

Input from the Japan side and the Ghana side were generally provided as planned. The final evaluation report indicated the need for effective use of the resource center in Akuapem North, to which the Japan side provided equipment and materials. When the ex-post evaluation was conducted, it was confirmed by the GES that the Center was being administered and utilized by the teacher training schools and education offices under INSET, which was being expanded nationwide.

(2) Elements of Inputs

Both the planned and actual project period was 60 months. Thus, the period of cooperation is as planned (100% of the planned target).

(3) Project Cost, Period of Cooperation

The planned cost was not confirmed at the time of ex-post evaluation, whereas the actual cost was about 884 million JPY.

Although it can't be judged the appropriateness of the project cost because the planned cost is unknown, the Outputs and Project Purpose have been achieved within the planned project period. Therefore, efficiency of the project is high.

4 Sustainability

(1) Related Policy towards the Project

The development plan as of the ex-post evaluation, the Ghana Poverty Reduction Strategy II (2006-2009), aimed to improve the quality of classes and learning in basic education under the issue of human resource development. The plan advocated efforts to improve teacher education and reinforce teacher management, for example, by using indicators such as the percentage of teachers who had received teacher training and INSET, and also emphasized improvements to class content in math and science and science and technology. At the sector level, Ghana's Ministry of Education prepared a nationwide expansion program in 2009 and expanded INSET nationwide, targeting the first group of 57 counties in fiscal 2009 and the second group of 71 counties in fiscal 2010. Accordingly, as of the ex-post evaluation, the policies that guarantee the effects of this project are sustainable.

(2) Institutional and Operational Aspects of the Executive Agency

At the time of the ex-post evaluation, GES was in charge of implementation from the time that the INSET policy was drafted, and there have been no changes in the implementation system and mandates. Since the project was completed, this implementation system has been reinforced to promote the nationwide expansion of INSET with the establishment of a new national INSET Unit (NIU). Moreover, the importance of strengthening the capacity of DEO (in particular, plan formulation, reports, and monitoring) was pointed out during the project implementation period, and after the project completion, JICA supported efforts to strengthen the implementation system needed to expand INSET nationwide. Under the new project, Japanese Experts worked with DEO, which play an important role in implementing INSET, to clarify roles and develop a monitoring system. Accordingly, it is judged that the counterpart system was sustainable.

(3) Technical Aspects of the Executive Agency

Since this project was completed, JICA has provided new support to GES with the aim of expanding INSET more widely. The teachers in the pilot schools were selected as national trainers and are utilized as curriculum leaders and resource persons for teacher training in the new project's target area. As such, JICA provides GES with ongoing technical cooperation to support INSET, and GES

is also engaged in independent initiatives to spread INSET nationwide. Accordingly, it is judged that the technical sustainability is also high.

(4) Financial Aspects of the Executive Agency

According to GES, INSET is identified as a high priority in education policies, so there is access to financial support from donors such as the World Bank and the UK Department for International Development (DfID); therefore, the sustainability of the financial aspects is high. Moreover, the World Bank gave Capitation Grants at the school level. At the district level, DEO prepared budgets for the INSET program, but it was pointed out that there are shortfalls and delays in the funding needed for INSET monitoring and evaluation activities because it depends on the districts' priorities. Despite some financial constraints, the commitment from Ghana's government and financial support from donors is ongoing; thus, its financial sustainability is high.

(5) Continuity of Effectiveness and Impact

This project aimed to improve the teaching skills and instructional content of math and science teachers in upper primary and junior secondary school, and an INSET package was developed, manuals prepared and institutionalization support provided in the three target district. After the project completion, JICA provided further support in 10 pilot districts (including this project's three target districts) to make the training packages more versatile with the aim of expanding INSET nationwide. Ghana's government has highly appreciated these series of cooperation, and JICA was supporting efforts to reinforce the implementation system and expand INSET nationwide as of the ex-post evaluation. As such, programs to improve the quality of Ghana's in-service school teachers are ongoing, and the effects of this project will have high continuity.

No major problems have been observed in the policy background, the structural, technical, and financial aspects of the executing agency; therefore, the sustainability of the project effects is high.