

Country Name	Technical and Vocational Education and Training Support Project
Republic of Ghana	

I. Project Outline

Background	<p>In Ghana, different ministries had their own institutions in the Technical and Vocational Education and Training (TVET) delivery, which caused the lack of consistency in quality of TVET. In addition, TVET programs were too theoretical and not practical to meet the needs of industry.</p> <p>JICA conducted “The Study of Development of a Master Plan to Strengthen Technical Education” in Ghana from 2000 to 2001, and recommended to start a demand-oriented TVET as one of the industrial human resource development strategies. The Ghanaian side complied with this recommendation for introducing the TVET policy with the concept of competency-based training (CBT). In line with the government’s education reform, the Government of Ghana enacted the TVET policy in 2006 to establish a new organization named the Council for Technical and Vocational Education and Training (COTVET) which coordinates and oversees all aspects of TVET.</p>														
Objectives of the Project	<p>Through establishing COTVET and its related structures and improvement of operational mechanism over TVET delivery, the project aimed at strengthening implementation capacity of COTVET and its related institutions for introducing CBT at TVET training institutions in and out of Accra, the capital city of Ghana, thereby contributing to increase in the number of TVET training institutions with CBT as well as operationalization of the Qualification Accreditation System in Ghana in the future. The Overall Goal and Project Purpose set forth are as below.</p> <ol style="list-style-type: none"> Overall Goal: (To be realized by end of Year 2016 by COTVET) 1) Increased number of TVET Training Institutions with CBT; 2) Qualification Accreditation System is operational. Project Purpose: To strengthen implementation capacity of COTVET and its related institutions for introducing CBT at TVET training institutions in and out of Accra, leading to formal National TVET Qualifications Framework and Qualification Accreditation System under COTVET. 														
Activities of the Project	<ol style="list-style-type: none"> Project site: Accra Main activities: 1) Support the formation of COTVET and Standing Committees*; 2) Develop harmonized CBT model for Ghana; 3) Formulate occupational standards and qualification accreditation system on mechanical engineering; 4) Develop guidelines for curriculum development and CBT piloting implementation; 5) Develop curriculum, operational guideline and training materials on mechanical engineering for each CBT pilot institution; 6) Implement pilot training by using the CBT materials developed. <p>*Note: The National TVET Qualifications Committee (NTVETQC), Training Quality Assurance Committee (TQAC), Industrial Training Advisory Committee (ITAC)</p> <ol style="list-style-type: none"> Inputs (to carry out above activities) <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Japanese Side</td> <td style="width: 50%;">Ghanaian Side</td> </tr> <tr> <td>1. Experts: 16 persons</td> <td>1. Staff allocated: 20 persons</td> </tr> <tr> <td>2. Trainees received: 19 persons</td> <td>2. Land and facilities: Project office, electricity, water supply</td> </tr> <tr> <td>3. Equipment: Necessary technical equipment and machineries for TVET training institutions</td> <td>3. Local cost: Workshop cost at the pilot training institutions</td> </tr> <tr> <td>4. Others: Technical officers (18 local staff)</td> <td></td> </tr> </table>					Japanese Side	Ghanaian Side	1. Experts: 16 persons	1. Staff allocated: 20 persons	2. Trainees received: 19 persons	2. Land and facilities: Project office, electricity, water supply	3. Equipment: Necessary technical equipment and machineries for TVET training institutions	3. Local cost: Workshop cost at the pilot training institutions	4. Others: Technical officers (18 local staff)	
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Ex-Ante Evaluation	2007	Project Period	April 2007 to December 2011 (Extension period: April 2011 to December 2011)	Project Cost	710 million yen										
Implementing Agency	Council for Technical and Vocational Education and Training (COTVET), National Vocational Training Institute (NVTI-PTI), Accra Technical Training Center (ATTC) and Accra Polytechnic														
Cooperation Agency in Japan	PADECO Co., Ltd.														

II. Result of the Evaluation

Note 1: Regarding the achievement of Project Purpose and Overall Goal, the indicators set for them and their results are shown in the Attachment at the end.

Note 2: While the expecting achievement year of Overall Goal is set in the end of 2016, the evaluation judgement is based on the current achievement level of Overall Goal at the time of ex-post evaluation (2015). Besides, a supplementary indicator for Overall Goal 2 is added for the ex-post evaluation since there was no indicator for Overall Goal 2 set in the original PDM and the evaluation judgement on the achievement of Overall Goal 2 is based on the result of supplementary indicator as well as the narrative summary of Overall Goal 2.

1 Relevance
<Consistency with the Development Plan of Ghana at the time of ex-ante and project completion>
The project was consistent with the Ghana’s development policy on ‘human resource development in industry sector,’ ‘importance of human resources for productivity and employment’ and ‘development and strengthening of TVET through the capture of TVET policy’ as set forth in the “Growth and Poverty Reduction Strategy II” (2006-2009), “Ghana Shared Growth and Development Agenda” (2010-2013), “Education Strategic Plan” (2003-2015) and “Education Strategic Plan II” (2010-2020).
<Consistency with the Development Needs of Ghana at the time of ex-ante and project completion >
The project met the needs of upgrading the quality of technical education of TVET institutions that need to satisfy the technical level required by industries.
<Consistency with Japan’s ODA Policy at the time of ex-ante evaluation>

The project is relevant with the “Country Assistance Policy for the Republic of Ghana” (June 2006) which placed the ‘human resource development in industry sector’ as one of the priority areas.

<Evaluation Result>

In light of the above, the relevance of the project is high.

2 Effectiveness/Impact

<Status of Achievement for Project Purpose at the time of Project Completion>

The Project Purpose was achieved. By the project completion, the occupational standards on mechanical engineering and training package for the 3 CBT courses (welding, electronics and plant engineering) were developed (Indicator 1) and the CBT courses were conducted at the 3 pilot training institutions of NVTI-PTI, ATTC and Accra Polytechnic (Indicator 2). In addition, the average pass rates of trainees of the CBT courses at the 3 pilot institutions were 100% each (Indicator 3). Furthermore, COTVET was fully established and the staff became capable of delivering their mandate as a leading institution in the TVET sector (Indicator 4 and 5).

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

Since the project completion, COTVET has been recognized as a leading TVET institution as well as acknowledged as an umbrella administration for TVET and the staff has been still capable of delivering the mandate of COTVET. The CBT courses developed by the project have been delivered by the 3 pilot institutions and 137 trainees in total have received the CBT courses after the project completion. In addition, the average pass rates of trainees of the CBT courses have kept 100% at the 3 pilot institutions.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The achievement level of Overall Goal is reasonable at the time of ex-post evaluation in 2015 despite of the target year of Overall Goal in 2016. The Overall Goal 1 “Increased number of TVET Training Institutions with CBT” has been almost achieved as of 2015 since the number of institutions increased from 3 during the project period to 17 in 2015 and other 57 institutions are earmarked for CBT implementation, along with increases from 0 to 17 after the project both in the number of ITAC Sub-committees as well as the number of demand-oriented TVET with CBT in different areas other than mechanical engineering. With these increases, the number of trainees who receive CBT has also reasonably increased and COTVET needs to develop more CBT training materials to fully achieve the Overall Goal 1. COTVET is currently rolling out CBT through its projects with development partners and these achievements were realized by the project itself as well as other donors’ projects on TVET. Regarding the Overall Goal 2 “Qualification Accreditation System is operational,” its current achievement is on the way. While the System was officially approved and legislated in 2012 (set as the supplementary indicator), it is yet to be implemented in a practical way as of the ex-post evaluation. COTVET is currently working towards implementing the System, which requires that some major structures are put in place and is necessary to develop manuals that will guide the process, register and accredit CBT facilitators, verifiers and assessors as well as to engage TVET providers and awarding bodies in order to fully achieve the Overall Goal 2.

<Other Impacts at the time of Ex-post Evaluation>

All graduates of the CBT courses at NVTI-PTI, ATTC and Accra Polytechnic have obtained employment. Most of them were employed by the companies where they had their “Workplace Experience Learning” as part of the courses. In addition, COTVET has organized training sessions for instructors of the member countries of the Economic Community of West African States (ECOWAS), some of which include courses on CBT training and learning materials to develop standards in their respective institutions. On another front, no negative impact by the project has been observed in terms of the environmental and social aspects.

<Evaluation Result>

The project achieved strengthening implementation capacity of COTVET and implementing CBT programs at the 3 pilot institutions during the project period and the increase in the number of training institutions delivering CBT as well as the official approval on Ghana TVET Qualification Accreditation System after the project. Furthermore, COTVET has been disseminating CBT to the member countries of ECOWAS. Therefore, effectiveness and impact of the project are high.

3 Efficiency

The project cost was significantly higher than planned (ratio against the plan: 182%) and the project period was longer than planned (ratio against the plan: 119%) since it was necessary to further strengthen COTVET’s implementing capacity to manage the harmonized CBT approach and related structures to deliver TVET, mainly due to delays in establishment of the standing committees and secretariat of COTVET, subsequent delay in the piloting activities, change in dispatch framework of JICA experts, etc. Therefore, efficiency of the project is low.

4 Sustainability

<Policy Aspect>

The “Ghana Shared Growth and Development Agenda 2” is the current national medium term development policy. There are portions of the policy description under education section, which emphasizes the promotion and development of TVET as a very important education strategy. The “Education Strategic Plan II” (2010–2020) still reiterates the importance of TVET through the capture of TVET policy. The Legislative Instrument 2195, COTVET ACT 718 and National Education Sector Annual Review clearly spell out and emphasize the dissemination of CBT.

<Institutional Aspect>

COTVET currently has 36 staff members and 55 contract staff (excluding the standing committee members) working on various projects implemented by the COTVET Secretariat. According to COTVET, the number of their staff is currently enough, but more members will be necessary taking into consideration their growing mandate. After the project, additional 2 standing committees, the Skills Development Fund Committee and National Apprenticeship Committee were established to enhance COTVET’s functions and accommodate the broadening mandate of COTVET.

<Technical Aspect>

All COTVET staff members who received technical assistance from JICA experts are still working at COTVET, except the then Executive Director. Skills and knowhow are delivered to newly assigned staff through working sessions together, staff orientation programs, in-house training, experiential learning and organizing training courses. COTVET staff members are currently delivering ‘Training of Trainers (TOT)’ to instructors at TVET institutions other than the 3 pilot institutions. The number of trained instructors are 103 (2010) and 109 (2011) during the project and 80 (2012), 202 (2013), 160 (2014), 160 (2015) after the project. In addition, most of the

teachers and facilitators who received technical assistance from JICA experts are still working at NVTI-PTI, ATTC and Accra Polytechnic.
<Financial Aspect>

In the Ghana Education Service (GES) under the Ministry of Education, which is an institution in charge of implementation of the Education Strategic Plan as well as education reform, the budget allocated for TVET is only about 1.2% of the total GES budget. This is inadequate amount for the TVET sector to roll out CBT throughout Ghana. In addition, no direct budget has been allocated to NVTI-PTI, ATTC and Accra Polytechnic apart from the payment of administrative costs. Equipment maintenance is financed through their own internally generated funds.

<Evaluation Result>

Some problems have been observed in terms of financial aspects of the implementing agency. Therefore, sustainability of the project is fair.

5 Summary of the Evaluation

The project achieved its Project Purpose and is expected to achieve its Overall Goal by the target year of 2016. The system to introduce and implement the demand-oriented TVET with CBT with the initiative of COTVET was developed by the project and the number of TVET institutions adopting the CBT program has been increasing in Ghana. On the other hand, there are some challenges in the financial aspect of sustainability due to the insufficient and uncertain budget allocation for rolling out CBT to all the training institutions in Ghana in the future. In addition, the project cost and project period were higher and longer than planned mainly due to a need to further strengthen COTVET's implementing capacity to manage the harmonized CBT approach and related structures to deliver TVET.

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

III. Recommendations & Lessons Learned

<Recommendations for Implementing Agency>

1. COTVET should adopt measures in channeling funds, such as donor funds to the 3 pilot institutions to ensure the financial sustainability of the project.
2. COTVET should support the TVET sector to generate more occupational standards in all trade areas, for programs at all levels.
3. In order for the project to be more effective, COTVET should speed up its activities towards CBT certification under the Ghana TVET Qualification Accreditation System by close of 2015 to avoid backlogs of the project.
4. CBT program development should follow through all the levels of certification by 2016 for easy access to enrolment and for smooth progression to the highest level of CBT certification.
5. The 3 pilot institutions should endeavor to use the resources they currently have for CBT implementation to generate funds internally to continuous implement and sustain CBT courses.
6. Measures should be put in place to pay and motivate the CBT facilitators so that more CBT materials/manuals would be developed.

<Lessons Learned for JICA>

There was some misunderstanding in course of the project implementation on the payment of CBT facilitators who developed a number of manuals for the project. It was realized at the time of ex-post evaluation that these facilitators had not been paid. According to COTVET, COTVET thought JICA was to finance their payment and JICA also thought it was COTVET's responsibility. This demotivated the CBT facilitators to develop new materials after the project. Both the Japanese and Ghana sides should have had a consensus on this before the commencement of the project.



In-class scenery of a CBT course at ATTC



Practical training at a CBT workshop

Attachment

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results
(Project Purpose) To strengthen implementation capacity of COTVET and its related institutions for introducing CBT at TVET training institutions in and out of Accra, leading to	1. Occupational Standards on mechanical engineering and training package, including curriculum, syllabus, training modules, training materials to be used at pilot training institutions are developed.	<u>Status of achievement: Achieved</u> (Project Completion) Occupational Standards on mechanical engineering and training package for 3 CBT courses (welding, electronics and plant engineering) were developed each at the 3 pilot training institutions of NVTI-PTI, ATTC and Accra Polytechnic. (Ex-post Evaluation) The CBT courses developed by the project have been still conducted at NVTI-PTI, ATTC and Accra Polytechnic as well as the materials developed have still been used.

formal National TVET Qualifications Framework and Qualification Accreditation System under COTVET.	2. Trainees receive CBT at pilot training institutions.	<u>Status of achievement: Achieved</u> (Project Completion) 191 trainees in total received CBT at NVTI-PTI, ATTC and Accra Polytechnic during the project period. (Ex-post Evaluation) After the project, 137 trainees in total have received CBT at NVTI-PTI, ATTC and Accra Polytechnic.
	3. Pass rate of the trainees on mechanical engineering at each qualifications level of piloting performs better than peers in the traditional system.	<u>Status of achievement: Achieved</u> (Project Completion) While the average pass rate of trainees who took the new CBT courses developed by the project at NVTI-PTI, ATTC and Accra Polytechnic was 100% each at the time of project completion, the average pass rate of other trainees in the traditional system was 75% at NVTI-PTI, 75% at ATTC and 100% at Accra Polytechnic. (Ex-post Evaluation) The current average pass rate of trainees of CBT courses keeps 100% at NVTI-PTI, ATTC and Accra Polytechnic each.
	4. COTVET fully established and accepted as a leader in the TVET sector.	<u>Status of achievement: Achieved</u> (Project Completion) COTVET was fully established and became a leader in the TVET sector. (Ex-post Evaluation) According to the 3 pilot training institutions and 2 private companies which accepted their students for training, COTVET is still accepted as a leader in the TVET sector since COTVET is acknowledged as the umbrella administration for TVET.
	5. COTVET staff able to deliver mandate of COTVET.	<u>Status of achievement: Achieved</u> (Project Completion) COTVET staff was able to deliver mandate of COTVET. (Ex-post Evaluation) COTVET staff has no problem in delivering their mandate.
	(Overall Goal) (To be realized by end of Year 2016 by COTVET) 1. Increased number of TVET Training Institutions with CBT.	1-1 Number of training materials at different levels of the National TVET Qualifications Framework (NTVETQF).
	1-2 Number of TVET institutions implementing CBT programs.	<u>Status of achievement: Achieved</u> (Ex-post Evaluation) The current number of TVET institutions implementing CBT programs is 17 in total including the 3 pilot institutions and other 57 institutions are earmarked for CBT implementation. These institutions are under the Ghana Education Service, Ministry of Food and Agriculture, Ministry of Road Transport, Ministry of Energy, Skills Development Initiative, Ministry of Education.
	1-3 Number of Industrial Training Advisory Sub-committee (ITAC Sub-committee) increases in technical areas other than mechanical engineering.	<u>Status of achievement: Achieved</u> (Ex-post Evaluation) The current number of ITAC Sub-committee in technical areas other than mechanical engineering is increasing to 17 from 0 at the project completion.
	1-4 By the end of Year 2016, number of trainees who receives CBT increases by 30% from the end of March, 2011.	<u>Status of achievement: Partially achieved</u> (Ex-post Evaluation) The number of trainees who receive CBT at the institutions other than NVTI-PTI, ATTC and Accra Polytechnic was not available at the ex-post evaluation. The number of trainees should be increased more than 30% since the number of institutions adopting CBT is increasing from 3 to 17.
	1-5 Number of demand-oriented TVET with CBT increases in different sectors other than mechanical engineering.	<u>Status of achievement: Achieved</u> (Ex-post Evaluation) The number of demand-oriented TVET with CBT in different sectors other than mechanical engineering increased from 0 as of the project completion to 17 in 2015.
2. Qualification Accreditation System is operational.	(Supplementary indicator) The Ghana TVET Qualification Accreditation System is officially approved.	<u>Status of achievement: Achieved</u> (Ex-post Evaluation) The Ghana TVET Qualification Accreditation System was officially approved in 2012 in the Legislative Instrument 2195 of the Council for Technical and Vocational Education and Training Regulations. Implementing the system requires that some major structures are put in place and that is what COTVET is currently working on.

Source: Internal documents, Interviews with COTVET, NVTI-PTI, ATTC and Accra Polytechnic