

Annex 4. Evaluation Grid: Terminal evaluation of Technical and Vocational Education and Training Support Project

Evaluation Criteria	Evaluation Items		Data Sources	Result
	Main Items	Sub-Items		
Process of Implementation	<u>System/Structure of the Project management and monitoring.</u>	Communication among organizations/personnel ~the extent of sharing info and challenges that are/were encountered	-Interview survey -Questionnaire	- The Project has regular communication platforms such as weekly and monthly meetings to share information on the progress of the Project implementation. - It is judged reasonable to have weekly meetings internally; whose various activities are proceeding rapidly through the coordination of the related personnel's schedule. -On the other hand, the frequency of the meeting with COTVET is on a monthly basis, though there was no serious communication gap between COTVET and the project owing to both sides' efforts to reinforce communication opportunities. - In addition, the project established its branch in the COTVET's office with some officers. The arrangement also effectively promoted communication between the project and COTVET.
		Monitoring system ~practical accomplishment and its effectiveness	-Interview survey -Questionnaire	- A monitoring system has been established for the project. In addition to the regular monitoring of the project activities, the project has paid attention to feed-back obtained from participants of the various types of trainings and workshops organized. The collected information is now in the process of being sorted by the project staff. Once ready the compiled feedback will be shared with related personnel.
	<u>Counteractions to more effective implementation of the Project</u>	Arrangement of input contents and/or volume in accordance with the Project implementation process	-Interview survey -Questionnaire	- Responding to the recommendations made by the mid-term review mission, the project drastically changed the manpower inputs from an assignment of two experts: chief advisor and coordinator, to an expert team composed of nine experts in total. - Since the project requires wide-ranging activities, from assistance to develop capacity and institutionalization of COTVET, to the piloting of CBT at each pilot institution, the increase of experts under the one umbrella team is evaluated as a reasonable amendment, which actually contributed to the acceleration of the achievement of outputs.
Relevance (To examine the justifiability or necessity for project implementation)	<u>Policy</u>	Consistency with the development policy of the government	-Documents of MoE - Documents of COTVET -Questionnaire -Interview survey	- The country's Education Strategic Plan (ESP) 2003-2015 has TVET as one of the four focus areas in the education sector, together with improvement of access, quality of education and educational management. The recently revised ESP II (2010 – 2020) also reiterates the importance of TVET through the capture of the TVET policy, which aims to 'improve the training quality and relevance.
	<u>Priority</u>	Consistency with Japanese ODA policy/plan	-Japan's Country Assistance Program/ Assistance Program/	- The project is also relevant to Japan's Country Assistance Program for the Republic of Ghana (2006), as it is within the cooperation program for the Support of Human Resources

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Evaluation Criteria	Evaluation Items		Data Sources	Result
	Main Items	Sub-Items (Country Assistance Program)		
		Sub-Items (Country Assistance Program)	country-specific program	Development needed for Industrial Sector, under its Strategic Objective four (SO4): Human Resource Development for Industrial Sector, within the priority development agenda of Promoting Industrial Development. The focal cooperation area of the policy is to support capacity development of the country's educational system from classroom to administration in order to improve TVET and science and mathematics education.
	<u>Selection of the target group cum. Implementing organization (COTVET)</u>	Needs of COTVET	-Project documents -Questionnaire -Interview survey	- Development of organizational as well as individual capacity of COTVET was the most prioritized issue to be tackled for the newly established organization COTVET. The project's activity components, which are varied from organizational capacity development, institutional building with a series of documents/formats to implement CBT approach, would directly contribute to forming the organizational and institutional base of COTVET. In this line, the project's activities met with the needs of COTVET, particularly taking into consideration that COTVET was in the launching stage as the focal TVET coordinating organization.
		Appropriateness of the target group (COTVET) in terms of the authorized roles/tasks in the government	-Project documents -Questionnaire -Interview survey	- Under the government's enactment of the COTVET act, only the COTVET can play the focal coordinating role in the TVET sector of Ghana. Although the delay of organizational set-up of COTVET has an impact on the performance of the project's outputs, it is evaluated that COTVET is selected appropriately as the counterpart organization in order to achieve the project purpose under the government's direction.
	<u>Selection of the target group (TVET students, instructors, and companies)</u>	Needs of TVET students, instructors and companies	-Project documents -Questionnaire -Interview survey	- The industrial sector in Ghana had requested TVET institutions to upgrade the quality of technical education because many of the graduates were not able to satisfy the technical level required by industries when they started work. At the same time, the gap existing between industries' expectation and graduates' technical level lead to difficulties for TVET graduates to find jobs. TVET institutions, therefore, had recognized the necessity to improve the education system to fill the gap. - Reflecting such needs of TVET institutions, the project used the CBT approach, an approach which places more emphasis on technical training including work place experience at industries. Since the approach can ensure to upgrade students' technical level more than the traditional TVET approach, it is regarded that the project's activities has met with the needs of TVET institutions.
		Appropriateness of three pilot schools		- The targeted three pilot institutions are evaluated as being of reasonable selection. - The project placed the criteria that the selected institution should: have physical environment to enable the conduct of the CBT approach, have minimum facility and workshops in particular.

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				<p>have a certain number of facilitators; be located in reasonable distance for the project to monitor activities.</p> <p>- The trades targeted at the institutions were also selected from the viewpoints of: the trades that Japan has the technical experience and knowledge, the trades that have strong linkage with developing industrial fields in Ghana, and to avoid duplication with other donors' activities.</p> <p>- Looking at the performance of the pilot institutions, it is confirmed the selection was appropriate for the project implementation.</p>
	<u>Advantage of Japanese technologies</u>			<p>- The technical instruction at the pilot institutions fully utilized Japanese technical advantage and experiences because the fields: plant engineering, electronics and welding are one of the major techniques that Japan has dedicated efforts to upgrade their technology for a long time. In addition, the concept such as 5S and Kaizen is also effectively introduced in their instruction. In this line, the project effectively adopted Japanese technical advantage and experiences particularly at pilot institutions.</p> <p>- On the other hand, the CBT approach has not been a popular method in the TVET sector in Japan, resulting in less knowledge and lessons accumulated on the CBT method. In order to reinforce the expertise on CBT, the project assigned local/international experts who had plenty of experiences on the CBT approach in African countries. This successfully assignment enhanced the performance of the project activities. In this line, the project may not be labeled as having "effective use of Japanese technical advantage". However, the implementation of the project did not receive any negative influences owing to such manpower arrangement.</p>
<u>Effectiveness</u> (To examine project effects)	<u>Project purpose</u>	<u>Achievement forecast for the Project purpose</u>	<p>-Project record -Questionnaire -Interview survey</p>	<p>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 forming a National TVET Qualifications Framework and Qualification Accreditation System under COTVET</p> <p>-Objectively verifiable indicator</p> <ol style="list-style-type: none"> <li>1) Occupational Standards on mechanical engineering and training package, including curriculum, syllabus, training modules, training materials to be used at pilot training institutions) is developed.</li> <li>2) Trainees receive CBT at pilot training institutions.</li> <li>3) Pass rate of the trainees on mechanical engineering at each qualifications level of piloting performs better than peers in the traditional system.</li> <li>4) COTVET fully established and accepted as a leader in the TVET sector.</li> <li>5) COTVET staff able to deliver mandate of COTVET</li> </ol>

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				<p>- The level of the achievement of the project purpose is evaluated at "almost high".</p> <p>- Thanks to the effort of COTVET and the pilot institutions with the support of the project staff/experts, the project showed significant progress in particular for the past one year after the mid-term review was conducted. Considering the key word on which the project purpose focused; "to strengthen" capacity of COTVET and related institutions, it is evaluated that the project successfully strengthened the capacity of these newly established organizations. However, if these organizations had been established with reasonable number of staff when originally planned, the level of implementation capacity would have been higher. In this line, the evaluation of the achievement level is lower than "high".</p> <p>- The followings show the achievement status of each respective indicator:</p> <p>- Indicator 1): the occupational standards of pilot trades are already developed, and are now approved by the ITAC, awaiting approval by the board. Training packages of the targeted trades were also established except the package for the 3rd year, and partially the 2nd year of A-Poly.</p> <p>- Indicator 2): the following table shows its achievement:</p> <table border="1"> <thead> <tr> <th>Inst.</th> <th>Number of trainees</th> </tr> </thead> <tbody> <tr> <td>ATTC</td> <td> <ul style="list-style-type: none"> <li>&gt; The original planned number of trainees: 20</li> <li>&gt; Trainees who accomplished in-school training: 16</li> <li>&gt; Trainees who accomplished both in-school training and workplace experience learning: 16</li> </ul> </td> </tr> <tr> <td>NVTI</td> <td> <ul style="list-style-type: none"> <li>&gt; The original planned number of trainees: 40</li> <li>&gt; Trainees who accomplished in-school training: 33</li> <li>&gt; Trainees who accomplished both in-school training and workplace experience learning: 33</li> </ul> </td> </tr> <tr> <td>A-Poly</td> <td> <ul style="list-style-type: none"> <li>&gt; The original planned number of trainees: 20</li> <li>&gt; Trainees who accomplished in-school training: 18</li> <li>&gt; Trainees who accomplished both in-school training and workplace experience learning: 18</li> </ul> </td> </tr> </tbody> </table> <p>- To judge the achievement of indicator 3) is difficult because of the concept of "pass" required for the CBT approach differs from the traditional scoring scheme. In addition, economic factors are a major reason for dropout of institutions in most cases. It is difficult to judge if the mode of education, either CBT or traditional, can affect dropout rates.</p>	Inst.	Number of trainees	ATTC	<ul style="list-style-type: none"> <li>&gt; The original planned number of trainees: 20</li> <li>&gt; Trainees who accomplished in-school training: 16</li> <li>&gt; Trainees who accomplished both in-school training and workplace experience learning: 16</li> </ul>	NVTI	<ul style="list-style-type: none"> <li>&gt; The original planned number of trainees: 40</li> <li>&gt; Trainees who accomplished in-school training: 33</li> <li>&gt; Trainees who accomplished both in-school training and workplace experience learning: 33</li> </ul>	A-Poly	<ul style="list-style-type: none"> <li>&gt; The original planned number of trainees: 20</li> <li>&gt; Trainees who accomplished in-school training: 18</li> <li>&gt; Trainees who accomplished both in-school training and workplace experience learning: 18</li> </ul>
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	Main Items	Sub-Items		
				<p>- Indicator 4): COTVET and standing committees were formally established, although the official set up was belated.</p> <p>- As to the recognition of COTVET, although there is still more need for awareness creation and public relations activities, many stakeholders are now recognizing COTVET as a focal coordinating body for TVET sector owing to a series of activities including TVET seminars, workplace experiences, and others.</p> <p>- Indicator 5): COTVET is still facing challenges to develop organizational capacity including the reinforcement of staff numbers. There is still a gap between the indicator's requirement and the actual situation.</p>
	Output 1.	Achievement forecast for Output 1.	<p>-Project record</p> <p>-Questionnaire</p> <p>-Interview survey</p>	<p>Output 1. COTVET is established and related structures acquire improved institutional and implementing capacity to deliver TVET under COTVET</p> <p>-Objectively verifiable indicator:</p> <ol style="list-style-type: none"> <li>1) COTVET and its structures such as ITAC, NTQC and TOAC are established, and 3 Standing Committees are working properly by COTVET.</li> <li>2) Industry participation in delivery of TVET enhanced.</li> <li>3) CBT model for Ghana developed.</li> <li>4) Occupational Standards and Qualification Accreditation system developed.</li> </ol> <p>- The achievement level of output 1 is evaluated as "moderate".</p> <p>- Through the project activities, COTVET and the standing committees have developed their implementing capacity with institutional setting to deliver the CBT approach. Owing to the effort, the institutional setting with necessary formats and documentation has significantly progressed. The forward steps taken for the past year is note worthy, but again, due to the lack of manpower of COTVET, it has not been able to fully function yet as stakeholders expected. In this line, the achievement level is slightly lower.</p> <p>- The followings show the achievement status of the respective indicators:</p> <p>- Indicator 1): the standing committees, ITAC, NTVETQC, and TOAC were established in April 2010.</p> <p>- The standing committees have prepared procedural documents for implementation of the CBT approach. As of the terminal evaluation, the committees had made 15 draft documents, out of the 30 documents supposedly to be made by the end of the project. In addition, the qualification framework for the TVET has been developed among the committees, but some of the key issues</p>

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Evaluation Criteria	Evaluation Items		Data Sources	Result
	Main Items	Sub-Items		
				<p>including awarding, accreditation and assurance system are still under coordination with stakeholders outside of COTVET.</p> <ul style="list-style-type: none"> <li>- COTVET's function was also developed in various aspects. COTVET has currently been developing its cooperate plan as an organizational master plan. In addition, COTVET has prepared a human resource development manual with an employment plan.</li> <li>- Indicator 2): the progress of industrial participation is obvious. Various industries are now participating in the standing committees, as well as receiving students in their companies as venues for workplace experience.</li> <li>- Indicator 3): CBT model for Ghana was officially approved by COTVET board in November 2010, named as the harmonized CBT model in Ghana. In this line, it is evaluated that the base of the Ghana model was successfully established. However, verification of the model was not completed yet because there are some issues which are still waiting for actual implementation with proper legal approval (e.g. Regulation for registration of assessors/verifiers, Criteria for the registration of Trade Association and professional bodies, etc).</li> <li>- It is concluded that the base of CBT model for Ghana was completed, but the model does not reach the level which can ensure smooth implementation with the actual experience of implementation. It requires more time to judge the completeness of the model.</li> <li>- Indicator 4), the achievement statuses are different for the occupational standard and the accreditation system. The occupational standards on pilot trades have already been approved at the SITACOS, and the ITAC, awaiting submission to the COTVET Board for the final approval process. The accreditation system also progressed during the project period, but has not yet reached a final consensus in the standing committees with other stakeholders.</li> </ul>
	Output 2	Achievement forecast for the Output 2.	<ul style="list-style-type: none"> <li>-Project record</li> <li>-Questionnaire</li> <li>-Interview survey</li> </ul>	<p>Output 2. Improved operational mechanism over TVET delivery through lessons learned from piloting CBT on mechanical engineering.</p> <ul style="list-style-type: none"> <li>-Objectively Verifiable Indicator.               <ol style="list-style-type: none"> <li>1) Training materials on mechanical engineering, including curriculum, training modules is developed at pilot training institutions.</li> <li>2) Demand-oriented TVET with CBT is conducted on mechanical engineering at pilot training institutions.</li> <li>3) Trainees at pilot training institutions take part in industrial-attachment training programs.</li> <li>4) Training of Trainers (TOT) materials developed</li> </ol> </li> </ul>

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				<p>- The achievement level of Output 2 is evaluated as "high".</p> <p>- With intensive works at each pilot institution, the operational mechanism of the CBT approach was developed, enabling its application to other TVET institutions as a CBT model.</p> <p>- The following shows the achievement status of the respective indicators:</p> <p>- Indicator 1): Training materials are already developed in the three pilot institutions for the targeted trade and level. Only the textbooks for the 3rd year and partially the 2nd year of A-Poly have not been completed yet.</p> <p>- Indicator 2): The CBT approach has been piloted in three pilot institutions as follows:</p> <table border="1"> <thead> <tr> <th>Trades</th> <th># of students</th> <th>Period</th> </tr> </thead> <tbody> <tr> <td>ATTIC</td> <td>20 (now 16)</td> <td>Oct 2009-</td> </tr> <tr> <td>NVTI</td> <td>40 (now 33) 2 classes</td> <td>Jan 2009-</td> </tr> <tr> <td>A-Poly</td> <td>20 (now 18)</td> <td>Oct 2009-</td> </tr> </tbody> </table> <p>- Indicator 3): all the trainees participated in workplace experience at 19 companies in and out of Accra. Some of the companies signed a MoU with the COTVET in order to secure outputs as well as smooth implementation of the workplace experience. It is noted that there are difficulties to have the motivation for the working staff that accept and train students on the field for workplace experience program on CBT.</p> <p>- Indicator 4): The TOT materials on CBT methodology were developed. The series of materials were used in ECOWAS TOT workshop, which invited facilitators at TVET institutions in Ghana in November 2010.</p> <p>- Contribution factors to the achievement of the project purpose and outputs are as follows:</p> <p>1) Devoted works by facilitators at pilot institutions</p> <p>- Facilitators at the pilot institutions made sincere efforts to produce learning materials for the CBT approach. Production of materials required them to hard work in addition to their ordinary tasks at their institutions. It should be noted that their efforts contributed to achievement of Output 2 in particular.</p> <p>2) Performance of the project's staffs</p> <p>- The Project made manpower inputs that have skills and knowledge on the CBT approach.</p>	Trades	# of students	Period	ATTIC	20 (now 16)	Oct 2009-	NVTI	40 (now 33) 2 classes	Jan 2009-	A-Poly	20 (now 18)	Oct 2009-
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	<p><u>Contribution factors</u></p>	<p>Contributing factors to enhance the achievement of the Output and/or Project purpose</p>	<p>-Questionnaire</p> <p>-Interview survey</p>													

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	Main Items	Sub-Items		
Efficiency (To examine project efficiency)				<p>which successfully contributed to establishing the harmonized CBT in accordance with the Ghanaian environment. Also, the project welcomed some facilitators to the project as coordinators of the project from the pilot institutions. The manpower enhanced the smooth implementation of the project activities.</p> <p>3) Cooperation from industries</p> <ul style="list-style-type: none"> <li>- Many famous, large-scale industries received students for workplace experience. Owing to the cooperation, workplace experience which is a core part of the CBT approach was successfully completed.</li> </ul>
		<p><u>Inhibition factors</u></p> <p>Factors to inhibit the achievement of the Output and/or Project purpose</p>	<p>-Questionnaire</p> <p>-Interview survey</p>	<p>- The delay in the organizational set-up of COTVET with reasonable number of staffs made an impact on the progress of the project. Although it is highly evaluated that COTVET showed significant progress of increase in the number of staffs particularly for the past one year, the manpower level has still not caught up with the requirement of COTVET's workload. The lingering delay until now has impacted on the level of achievement as well as on the sustainability of technical aspect because of insufficient time the project had for technical transfer.</p> <p>Important assumptions (have been secured or not, and prospects for the remaining period)</p> <ul style="list-style-type: none"> <li>- The proper assignment of staffs at COTVET and its standing committees was set as an important assumption.</li> <li>- Other assumptions in the PDM should have been regarded as responsible actions of the project. They are inappropriate as important assumptions.</li> </ul>
	<p><u>Input (manpower)</u></p> <p>Enhancement of the output by the manpower input of Japanese experts (number, expertise, timing, performance)</p> <ul style="list-style-type: none"> <li>* to see the appropriateness of the balance between manpower input and project's design / framework</li> </ul>	<p>-Project record</p> <p>-Questionnaire</p> <p>-Interview survey</p>	<p>Japanese manpower input</p> <ul style="list-style-type: none"> <li>- As noted in the counteraction made by the project in the course of implementation, the project drastically changed the manpower inputs from the assignment of two experts: chief advisor and coordinator to an expert team composed of nine experts in response to the recommendations of the mid-term review mission, and the change successfully contributed to the progress of the project's achievement.</li> <li>- Additional manpower inputs of experts at each technical field enhanced the quality of CBT approach from the aspect of trainers' training. Their technical assistance provided valuable feedback to make training packages as well.</li> <li>- As to the timing of the experts' assignment, the project placed at least one expert to stay in Ghana during the project period so as to keep monitoring activities. The timing is evaluated</li> </ul>	

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