

Annex 4: Evaluation Grid

Evaluation Criteria	Evaluation Question		Data Required	Data Source	Data Collection Method
	Main Question	Sub-Question			
Progress toward Output 1: COTVET is established and TVET implementing institutions acquire improved institutional and implementing capacity to deliver TVET under COTVET.	Progress made toward Outputs	Progress toward Output 2: Improved operational mechanism over TVET delivery through lessons learned from piloting CBT on mechanical engineering.	1-1 TVET implementing institutions are established and necessary duties are performed by the GoG.	Project reports, Reports of COTVET, JICA project experts, C/Ps at MoE, COTVET and other TVET implementing institutions.	Document review, Questionnaire, Interview, Workshop
			1-2 Improved understanding of TVET, particularly on public-private partnership on TVET.	Project reports, JICA project experts, C/Ps at MoE, COTVET and other TVET implementing institutions, Private companies.	
			Degree of institutional & implementing capacity developed at TVET implementing institutions	Project reports, JICA project experts, C/Ps at MoE, COTVET and other TVET implementing institutions	
			Evaluation on COTVET by pilot training institutions	C/Ps at pilot training institutions	
			2-1 Training packages on mechanical engineering, including curriculum, syllabus, training modules, training materials is developed at pilot training institutions.	Training package, Project reports, JICA project experts, C/Ps at MoE, COTVET & pilot training institutions	
			2-2 Demand-oriented TVET with CBT is conducted on mechanical engineering at pilot training institutions.	Project reports, JICA project experts, C/Ps at MoE, COTVET and pilot training institutions	
			2-3 Trainees at pilot training institutions take part in industrial-attachment training programs.	Project reports, JICA project experts, C/Ps at pilot training institutions	
			2-4 Increased job opportunities at pilot training institutions in improved above openings ratio.	Project reports, JICA project experts, C/Ps at pilot training institutions	
			Degree of instructors' teaching capacity developed	Project reports, JICA project experts, C/Ps at pilot training institutions	
			Degree of C/Ps capacity to plan, implement/deliver, monitor, evaluate and feedback developed	Project reports, JICA project experts, C/Ps at MoE, COTVET & pilot training institutions	
Progress toward Output 3	Progress toward Output 3	Progress toward Output 3	Degree of satisfaction by students and graduates	Project reports, JICA project experts, C/Ps at pilot training institutions	
			3-1 Increased number of technical areas other than mechanical engineering to be selected by Needs Survey conducted by ITAC.	Results of Needs Survey, Project reports, JICA project experts, C/Ps at MoE & COTVET	
			3-2 Increased number of companies that participate in demand-oriented TVET.		

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Evaluation Criteria	Evaluation Question		Data Required	Data Source	Data Collection Method
	Main Question	Sub-Question			
1. Achievement	Progress made toward Project Purpose	improved mechanism to encourage CBT on other technical areas.	<p>3-3 Seminars and workshops on TVET are held to promote participation in demand-oriented TVET.</p> <p>3-4 Increased number of ITAC sub-committees established on technical areas other than mechanical engineering.</p> <p>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.</p> <p>2 Trainees receive CBT at pilot training institutions</p> <p>3 Pass rate of the trainees on mechanical engineering at each qualification level of piloting continuously kept at 70% and over.</p> <p>The number of private company which continuously accepts trainees for industrial-attachment training increased.</p> <p>Constraining factors and remedial measures taken</p>	Project reports, JICA project experts, C/Ps at MoE & COTVET, Private companies	Document review, Questionnaire, Interview, Workshop
		Is the Project Purpose likely to be achieved considering the status of Inputs, Activities and achievement of Outputs?	<p>1 Number of training packages at the intermediate and advanced levels</p> <p>2 Number of technical training packages implemented at intermediate and advanced levels</p> <p>3 Number of Industrial Training Advisory Sub-committee (ITAC sub-committee) increases on technical areas other than mechanical engineering.</p> <p>4 By the end of year 2016, number of trainees who received CBT increases by 30% from the end of March, 2011</p> <p>5 Number of demand-oriented TVET with CBT increases at training subjects other than mechanical engineering</p> <p>6 Pass rate of the trainees on each competency level continuously kept at 70% and above.</p>	Project reports, JICA project experts, C/Ps at MoE, COTVET & pilot training institutions	
	Progress made toward Overall Goal	Are there any constraining factors for the achievement of the Project Purpose?	<p>1 Number of training packages at the intermediate and advanced levels</p> <p>2 Number of technical training packages implemented at intermediate and advanced levels</p> <p>3 Number of Industrial Training Advisory Sub-committee (ITAC sub-committee) increases on technical areas other than mechanical engineering.</p> <p>4 By the end of year 2016, number of trainees who received CBT increases by 30% from the end of March, 2011</p> <p>5 Number of demand-oriented TVET with CBT increases at training subjects other than mechanical engineering</p> <p>6 Pass rate of the trainees on each competency level continuously kept at 70% and above.</p>	<p>Project reports, JICA project experts, C/Ps at MoE, COTVET & pilot training institutions</p> <p>C/Ps at COTVET, pilot training institutions, private companies which accept trainees</p> <p>JICA project experts, C/Ps at MoE, COTVET and pilot training institutions. Project reports</p> <p>Training package, Project reports, JICA project experts, C/Ps at MoE, COTVET & pilot training institutions</p> <p>Project reports, JICA project experts, C/Ps at MoE, COTVET & pilot training institutions</p> <p>Project reports, JICA project experts, C/Ps at MoE & COTVET</p> <p>Project reports, JICA project experts, C/Ps at MoE, COTVET & pilot training institutions</p>	Document review, Questionnaire, Interview
		Is the Overall Goal likely to be achieved in 3 to 5 years after the completion of the Project?	<p>1 Number of training packages at the intermediate and advanced levels</p> <p>2 Number of technical training packages implemented at intermediate and advanced levels</p> <p>3 Number of Industrial Training Advisory Sub-committee (ITAC sub-committee) increases on technical areas other than mechanical engineering.</p> <p>4 By the end of year 2016, number of trainees who received CBT increases by 30% from the end of March, 2011</p> <p>5 Number of demand-oriented TVET with CBT increases at training subjects other than mechanical engineering</p> <p>6 Pass rate of the trainees on each competency level continuously kept at 70% and above.</p>	Project reports, JICA project experts, C/Ps at MoE, COTVET & pilot training institutions	

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Evaluation Criteria	Evaluation Question		Data Required	Data Source	Data Collection Method
	Main Question	Sub-Question			
			Number of graduates from TVET training institutions who are accredited with official qualification increases	Project reports, JICA project experts, C/Ps at MoE & COTVET JICA project experts, C/Ps at MoE and pilot training institutions. Project reports	
			Number of TVET training institutions which adopt OBT increases		
			Economic factors, Cultural factors, Factors related to access		
			Number of counterparts assigned to the project, and his/her title		
			Project implementation/management/support system		
			Type and quantity of facilities provided, Purpose of the provision		
			List of budget and materials allocated		
			Number of experts allocated to required technical area, Duration and timing of expert dispatch		
			Number of technical officers hired, Purpose of hiring them and their roles, Duration and timing of the employment		
			Purpose & contents of the training, Number of trainees, Period and timing of the training		
Status of the Inputs			Purpose & contents of the training, Number of trainees, Period and timing of the training	Record of the inputs, JICA project experts, C/Ps at MoE	Document review
			Project implementation/management/support system		
			Budget and details of disbursement		
			Progress of the Activities		
			Problems which influenced the progress of the Activities		
			Problems which influenced the progress of the Activities		
			Problems which influenced the progress of the Activities		
			Problems which influenced the progress of the Activities		
			Problems which influenced the progress of the Activities		
			Problems which influenced the progress of the Activities		
Progress of the Activities			Problems which influenced the progress of the Activities	Project reports, JICA project experts, C/Ps at MoE and pilot training institutions	Document review, Questionnaire, Interview
			Problems which influenced the progress of the Activities		

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Evaluation Criteria	Evaluator Question		Data Required	Data Source	Data Collection Method	
	Main Question	Sub-Question				
2 Implementation Process		When there are problems which hinder progress of the Activities, how were they solved?	Measures and system employed for problem-solving			
		How have the important decisions regarding the Project been made?	Process of decision-making	Project reports, JICA project experts, C/Ps at MoE, COTVET & pilot training institutions, JICA Ghana		
	Decision-making and communication	Has the communication within the Project been made effectively? (Has information been shared within the Project?)	Frequency of JCC meeting and other alternative meetings	Project reports, JICA project experts, C/Ps at MoE, COTVET & pilot training institutions		Document review, Questionnaire, Interview
		Has the communication between the Project and JICA Headquarters, JICA Ghana, and other related Japanese organizations been adequate?	Process of takeover between the two Japanese experts, Frequency and method of communication among Japanese experts, among Japanese experts, local staff and C/Ps, and among C/Ps, Measures taken when a project plan is changed, Measures taken to solve problems collaboratively, Establishment of trust within the Project	Project reports, JICA project experts, local staff, C/Ps at COTVET & pilot training institutions, JICA Ghana		
	Monitoring	Has the communication between the Project and relevant Ghanaian agencies been adequate?	Frequency of communication, Measures taken when project plan is changed, Measures taken to solve problems collaboratively, Contents of support provided by related Japanese organizations	Frequency of communication, Measures taken when project plan is changed, Measures taken to solve problems collaboratively, Establishment of trust with relevant Ghanaian agencies, Level of activeness and participation of C/Ps	Project reports, JICA project experts, local staff, C/Ps at MoE & COTVET, JICA Ghana	
		Has regular monitoring been conducted? How has it been conducted?	Monitoring plan, Record of monitoring	Monitoring plan, Record of monitoring	Project reports, JICA project experts, C/Ps at MoE & COTVET	
	Monitoring	Have the results of the monitoring been incorporated into the Project? If yes, how have they been incorporated?	Usage of monitoring results	Usage of monitoring results	Project reports, JICA project experts, C/Ps at MoE & COTVET	
		Have there been any changes in the PDM and the Activities? If yes, have they been appropriate?	Changes in the PDM and the reason for the changes	Changes in the PDM and the reason for the changes	PDM, Project reports, JICA project experts, C/Ps at MoE & COTVET	Document review, Questionnaire, Interview

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Evaluation Criteria	Evaluation Question		Data Required	Data Source	Data Collection Method	
	Main Question	Sub-Question				
		Have there been any changes in the important assumptions? Has the project been influenced by the changes of important assumptions? Have the influences adequately dealt with?	Changes in the important assumptions and the influences to the project Measures taken to cope with the influences	Project reports, JICA project experts, C/Ps at MoE & COTVET		
		Authorities and responsibilities of the MoE, MoESW, all the committees and piloting training institutions clear?	Authorities, roles and responsibilities of the MoE, MoESW, all the committees and piloting training institutions	Project reports, JICA project experts, C/Ps at MoE & COTVET		Document review, Questionnaire, Interview
	Counterparts/ Ownership	Has the participation of managers of the Ghanaian side appropriate?	Levels of participation of the Ghanaian managers	JICA project experts		
		Have the number and quality of C/Ps assigned to the Project been appropriate?	Evaluation regarding C/Ps from Project experts			
		Have the C/Ps participated in the Project sufficiently?	Activities implemented and efforts made by C/P (including monitoring of the project, operational and budgetary efforts, etc.), Frequency of communication with the JICA Project experts	Project reports, JICA project experts, C/Ps at MoE, COTVET & pilot training institutions	Document review, Questionnaire, Interview	
		Has the allocation of budget of the Ghanaian side been sufficient?	Record of inputs from the Ghanaian side	Record of inputs, JICA project experts		
	Relevance of the project plan	Are the Project Purpose and the Overall Goal consistent with the Ghanaian education policy?	Education policy of Ghana	ESP, TVET Policy, COTVET Law (GPRS II, Education White Paper)	Document review	
		Is the Overall Goal consistent with the Japanese aid policy?	Japanese aid policy for Ghana	JICA's aid policy for Ghana		
		Was the target area selected appropriately?	Selection criteria of the target area	Record of consultation		
		Is the Project Purpose still consistent with the needs of the country and institutions?	Needs of the government and TVET training institutions	C/Ps at MoE, COTVET & pilot training institutions		
	Was the selection of the target group (COTVET, three piloting institutions) appropriate?	Selection process of counterpart agencies and the target group	JICA Ghana, JICA project experts, C/Ps at MoE & COTVET			

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Evaluation Criteria	Evaluation Question		Data Required	Data Source	Data Collection Method
	Main Question	Sub-Question			
3. Relevance	Appropriateness of the means	Is the Project appropriate as a means to strengthen Ghanaian TVET implementation system with a view to establishing National TVET Qualifications Framework & Qualification Accreditation System in Ghana?	Appropriateness as a measure, Status of utilization of Ghanaian and Japanese know-how, Appropriateness as a type./formation of cooperation and method	Master Plan, JICA project experts, C/Ps at MoE, COTVET & piloting institutions, Project reports	Document review, Questionnaire, Interview
		Is the project approach appropriate?	Appropriateness the logic of the Project ("Activities" → "Outputs" → "Project Purpose" → "Overall Goal") Probability to fulfill important assumptions	JICA project experts, Project reports, PDM	
	Advantage of Japanese technology	Has JICA ever assisted other countries especially in Sub-Saharan Africa in the same technical area? Have enough knowledge and experiences been	Record of Japanese past aid project Evaluation of Japanese technology/skills by C/Ps	JICA Headquarters	
	Change of the environment of the Project	Have there been any changes in the environment (including trend of aid by other donors) of the Project? Have there been any influences by the changes?	Information about political, economic and social changes, Trend of aid by other donors in education	JICA project experts, C/Ps at MoE, COTVET & pilot training institutions, Project reports	
4. Effectiveness	Likelihood of achieving Project Purpose	Is the Project Purpose likely to be achieved considering the status of Inputs, Activities and achievement of Outputs?	Trend of the project indicators, Achievement and progress of the Project	JICA project experts, C/Ps at MoE & COTVET, Project reports	Document review, Questionnaire, Interview, Workshop
		Are there any constraining factors for the achievement of the Project Purpose?	Constraining factors and remedial measures taken	JICA project experts, C/Ps at MoE, COTVET & pilot training institutions, Project reports	
	Effectiveness of training conducted to C/P	Have C/Ps at MoE and MoESW acquire capacity to plan, implement, and monitor the Project effectively?	Relevance of training to the needs of C/Ps, Degree of C/P's capacity developed by the Project, Utilization of skills/knowledge acquired through the training by the C/Ps	JICA project experts, C/Ps at MoE, COTVET & pilot training institutions, Project reports	
		Readiness of instructors at TVET training institutions to deliver CST	Degree of instructor's capacity developed by ToT on teaching method, and curriculum development.	JICA project experts, C/Ps at MoE, COTVET & pilot training institutions, Project reports	
		Are the three outputs enough to achieve the Project Purpose?	Important assumptions and logic of the Project	JICA project experts, Project reports, C/Ps at MoE & COTVET	

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Evaluation Criteria	Evaluation Question		Data Required	Data Source	Data Collection Method	
	Main Question	Sub-Question				
5. Efficiency	Correlation between Outputs and Project Purpose	Have the important assumptions to attain Project Purpose been fulfilled?	1) Whether or not established funds for the introduction of CBT method are effectively utilized with audits by the third party institutions 2) Whether or not collaboration with the industry sector is obtained for the implementation of Industrial-attachment training	JICA project experts, C/Ps at MoE, COTVET and pilot training institutions, Private companies, Project reports	Document review, Questionnaire, Interview, Workshop	
		Have the Activities been implemented as planned? Are there any factors which constrained the achievement of the Outputs?	Record of achievement of Outputs, Record of Activities Constraining factors and remedial measures taken	JICA project experts, C/Ps at MOE, COTVET & pilot training institutions, Project reports		
	Achievement of Outputs	Have the important assumptions to attain Outputs been fulfilled?	1) Whether or not funds for the introduction of CBT are established by GoG and the industry sector. 2) Whether or not necessary budget and resource allocations by both public and industry sectors are made to the TVET institutions. 3) Whether or not human resources assigned to the TVET institutions are retained	JICA project experts, C/Ps at MoE & COTVET		
		Correlation among Inputs, Activities and Outputs	Have the Inputs been appropriate in terms of quantity, quality and timing?	Japanese experts (number of experts, technical area, Equipment and facilities provided (type, quantity, timing) Training in Japan (number of trainee, purpose & contents of the training, timing, utilization of skills/knowledge Training in third country (number of trainee, purpose & contents of the training, timing, utilization of skills/knowledge acquired) C/P (number of counterparts, technical area, timing) If there are Inputs which were not utilized		Record of Inputs, JICA project experts, C/Ps (incl. participants of training) at MoE, COTVET & piloting institutions
			Are the Activities sufficient to achieve the Outputs? Has the method employed for technical transfer from JICA Project experts to C/P been	Record of Activities, Achievement of the Outputs		C/Ps at MoE, COTVET and pilot training institutions
	Project management/implementation system	Has the project management system been effective and efficient in promoting project activities? (Japanese side, Ghanaian side, between Japanese and Ghanaian sides)	Level of C/P's satisfaction, Issues to be improved	JICA project experts, C/Ps at MOE, COTVET & pilot training institutions, Project reports		
		Have the resources and experiences of the target country/area been effectively	Examples of good practices	JICA project experts, C/Ps at MoE, COTVET and piloting institutions		

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	Main Question	Sub-Question			
5. Impact	Cost efficiency	Are there any effective measures taken in order to raise cost efficiency of the Project? Has there been coordination or cooperation with other donors to enhance the project effects? Has there been any coordination with other Japanese development schemes?	Measures taken to raise cost efficiency	JICA project experts	
		Coordination and cooperation with other donors and schemes	Cooperation and coordination with other donors and schemes	JICA project experts	Document Review, Questionnaire, Interview
		Likelihood of achieving Overall Goal	Trend of the indicators of the Overall Goal	JICA project experts, C/Ps at MoE, GOTVET & pilot training institutions, Project reports	Document review
		Ripple effect	The number of cases which employed the project approach in other areas	JICA project experts, C/Ps at MoE, GOTVET & pilot training institutions, Project reports	Document review, Questionnaire, Interview
			Economic factors, Cultural factors, Factors related to access	JICA project experts, C/Ps at MoE, GOTVET & pilot training institutions, Project reports	Document review, Questionnaire, Interview
			Observation of the impacts in terms of aspects of policy, law, institution, equality/human rights, technical innovation, and economy.		
			Activities implemented by the initiative of the Ghanaian side		
			Adoption of the CBT model in other areas/training	JICA project experts, C/Ps at MoE & GOTVET, Project reports	Document review, Questionnaire, Interview
			Observation in terms of political, constitutional and institutional aspects, equality/human rights aspects, technical innovation aspects, economic aspects.		
			Project logic, Influences of important assumptions		Document review, Questionnaire, Interview
	Correlation between Project Purpose and Overall Goal	1) Whether or not public-private partnership is maintained for conducting industrial attachment training programs 2) Whether or not human resource assigned to TVET implementing institutions are retained 3) Whether or not Human resource assigned by the private sector to the TVET implementing institutions are		PDM, JICA project experts, C/Ps at MoE, GOTVET & pilot training institutions, Project reports	Questionnaire, Interview
	Policy	Policy and plan of the government regarding the TVET project and its approach Likelihood of the Project approach being incorporated into GoG		C/Ps at MoE, GOTVET & MoESW C/Ps at MoE, GOTVET &	

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Evaluation Contents	Evaluation Question		Data Required	Data Source	Data Collection Method
	Main Question	Sub-Question			
7. Sustainability	Budget	Will the budget for this approach be secured as an activity of GoG?	Disbursement made so far by the Ghanaian side for the Project	MoESW	Document review, Questionnaire, Interview
	Organization	Does the project implementation system have an organizational ability to conduct the Activities effectively after the completion of the Project?	System within MoE, COTVET, other related committees and pilot training institutions		
	Personnel	Is it likely that C/Ps assigned will be retained in the Project? Are there any remedial measures prepared in case of staff rotation?	Level of ownership at MoE, COTVET, other related committees and pilot training institutions		
	Capacity development	Does the project team already have capacity to implement the Activities effectively? Are they motivated to continue the Project on their own?	System of rotation of Ghanaian civil servants, System of retaining institutional memory		
	Maintenance and management of equipment/facility	Has the equipment and facilities provided been maintained properly?	The level of capacity developed, Capacity still undeveloped, Level of motivation to sustain the Project, Examples of initiatives taken by C/Ps		
	Contributing/costraining factors	What are the contributing and constraining factors for the sustainability of the Project?	Status of maintenance and utilization of the equipment and facilities		
	Considering the current status, will the Project Purpose be achieved?	Is it necessary to change the contents of the Inputs, Activities and Outputs?	Contributing factors		
	Is it necessary to add, change or remove indicators and goal indicators?	Is it necessary to add or change the important assumptions?	Constraining factors		
	Are there any other points to pay attention to for the rest of the project period?				
	8. Necessity of Project Adjustment				
				JICA project experts, C/Ps at MoE, COTVET & pilot training institutions, Project reports	
					Consultation within the Japanese side, consultation with the Ghanaian side

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Annex 5: List of Inputs and Products

(1) Dispatch of Experts

1) Japanese Experts

No.	Title	Name of Expert	Dispatch Period	M/M
1	Chief Advisor/TVET	HASHIMOTO Yoshiyuki	2007.4.2 - 2008.2.24	10.96
2	Chief Advisor/TVET Management	KIMURA Kenji	(1) 2008. 4.27 -11.12 (2) 2009.6.1-12.16	(1) 6.67 (2) 2.03
3	Project Administrator /institutionalization of TVET Implementing Institutes	MR.Koji Shimokawa	2007.4.2 - 2007.8.5	4.10
4	Project Administrator	ISHIYAMA Yoshio	2007.12.4 - 2009.12.3	20.2
5	Chief Advisor/TVET Management	KIMURA Kenji	(1) 2008. 4.27 -11.12 (2) 2009.6.1-12.16	(1) 200 (2) 61

2) Technical Officers hired in Ghana

No.	Title	Name of Officer	Hired Period	M/M
1	TVET Institutions and Curriculum Development	TURKSON Stephen	2007.4.16 -present	28.73
2	Training of Trainers and Piloting	ODOTEI Eric	2007.4.26 -present	28.4

(2) Counterparts' Training in Japan

1) Title of Training Course: TVET Management

Course Duration: 9 November, 2008 - 22 November, 2008

No	Name of Participant	Position	Organization
1	Mr. Daniel BAF FOUR-AWUAH	Executive Director	COTVET, MoE
2	Mr. Isaac Kinson Yaovi EZEH	Deputy Director	TVED, GES, MoE

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2) Title of Training Course: Material Development & Teaching Methods

Course Duration: 3 November, 2008 - 12 December, 2008

No	Name of Participant	Position	Organization
1	Mr. Stephen Onwona ADJAPONG	Assistant Curriculum Development and Research Secretary	NABPTEX
2	Mr. Godwin Adjel Yaw KUDESE	Centers' Coordinator	NVTI
3	Mr. Robert DANFUL	Instructor	ATTC, GES
4	Mr. Philip Kwesi INCOOM	Curriculum Development, Training and Supervision	TVED, GES
5	Mr. Peter Akwasi ATTOBRAH	Head of Technical Examination Unit	TVED, GES
6	Mr. Stephen AGYEMANG	Lecture	Mechanical Engineering Department, Accra Polytechnic

(3) Provision of Equipment

1) NVTI Pilot Training Center

No	Items	Model	Manufacturer	Quantity	Unit Price (US\$)	Total (US\$)	Remarks	Usage		
								Utilizing	Fault	Disposed
	FY2007-2008									
1	Lab Card 1 Resister	ELE102010	TERCO	6	215.00	1,290.00		0		
2	Lab Card 2 Capacitors	ELE102020	TERCO	6	255.00	1,530.00		0		
3	Lab Card 3 Diodes	ELE102030	TERCO	6	270.00	1,620.00		0		
4	Lab Card 4 Voltage Regulator	ELE102040	TERCO	6	364.00	2,184.00		0		
5	Lab Card 5 Transistor	ELE102050	TERCO	6	255.00	1,530.00		0		

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6	Basic Unit 2000	ELE102000	TERCO	6	1,169.00	7,014.00	0
7	Storage Rack	ELE102004	TERCO	2	488.00	976.00	0
						16,144.00	0
						FOB	
						16,725.00	
	FY2008-2009						
1	Photo copier	IR5035N	Canon	1	14,170	14,170	0
2	AE1 Power Amplifier	ELE 102401	TERCO	6	1,487.00	8,922.00	0
3	AE3 Differential Amplifier	ELE 102403	TERCO	6	580.00	3,480.00	0
4	AE4 Pre-Amplifier	ELE 102404	TERCO	6	704.00	4,224.00	0
5	AE5 Power Amplifier	ELE 102405	TERCO	6	580.00	3,480.00	0
6	AE6 IR Receiver	ELE 102406	TERCO	6	570.00	3,420.00	0
7	AE7 IR Transmitter	ELE 102407	TERCO	6	507.00	3,042.00	0
8	AE8 RC Oscillator	ELE 102408	TERCO	6	626.00	3,756.00	0
9	Basic Unit 2000	ELE 102000	TERCO	12	1,299.00	15,588.00	0
10	Storage Rack	ELE 102004	TERCO	4	542.00	2,168.00	0
11	Advanced Analogue Electronics	BOK 112063	TERCO	6	22.00	132.00	0
12	Lab Card 6 House Alarm	ELE 102060	TERCO	6	1,120.00	6,720.00	0
13	S24 Digital Connection Board	ELE 102090	TERCO	6	174.00	1,044.00	0
14	DG1 Component Set	ELE 102065	TERCO	6	206.00	1,236.00	0
15	Basic Digital Electronics, Laboratory Exercises	BOK 102030	TERCO	6	155.00	930.00	0
						58,142	0
						FOB	

			Grand Total CIF Accra by Air Freight in US Dollars	59,732.00		
			Grand Total in FY 2008/09	73,902.00		

2) Accra Polytechnic

No.	Items	Model	Manufacturer	Quantity	Unit Price (US\$)	Total (US\$)	Remarks	Usage			
								Utilizing	Fault	Disposed	
	FY2008-2009										
1	Welding Machine	Weldmate	SIP	2	2,631.00	5,262.00	To be used				
2	Accessories for the above		ditto	2	392.20	784.40	To be used				
3	Argon Welding Machine	CITOLINESS 00T	DERLIKON	3	7,021.94	21,065.82	To be used				
4	Argon Regulator		Citigas	3	115.92	347.76	To be used				
5	Grinding Machine		BOSCH	2	390.44	780.88	To be used				
6	Angle Grinder		BOSCH	2	269.58	539.16	To be used				
7	Hand Drilling Machine		BOSCH	2	830.00	1,660.00	To be used				
8	Other cost				3,044.00	3,044.00					
				Grand Total in FY	2008/09	33,484.00					

(4) Operational Expenses borne by Ghanaian Side

- 1) Expenses necessary for activities for Counterpart (personnel expenses, equipment etc.)
- 2) Expenses necessary for activities in pilot institutes (Renovation fee for Electronic Lab, Attendance fee for Meetings); Provided by each Pilot Institutions
- 3) Expenses necessary for workshops, meeting, etc beyond the pilot activities
- 4) Expenses for JICA experts team office space; Office is provided by ATTC.

ATTC

(5) Assignment of Direct Counterpart Personnel and Other Main Stakeholders (as of July 2009)

1) COTVET

No.	Name	Position	Remarks (Ex-participant, etc)
1	Mr. Daniel Baffour - Awuah	Executive Director	Project Director / Ex-participant (2008)
2	Ms. Phyllis Andoh	Administrative Manager	

2) COTVET Board

No.	Name	Position in the COTVET Board	Belonging Organization
1	Mr. Nick Opoku	Chairman	Industrialist
2	Mrs. Ama M. Owusu Ohene	Member	Educationalist/Industrialist
3	Mrs. Sharon Feneku	Member	Industrialist
4	Dr. Dominic Pealoro	Member	Ministry of Education
5	Mr. Frimpong Isaac	Member	Ghana Employers Association
6	Mr. David Kobla Dorkeku	Member	Trades Union Congress
7	Mr. Ebenezer Acquaaah-Harrison	Member	Association of Ghana Industries
8	Mr. Kweku Ofon Bruku	Member	Institution of Incorporated Engineers
9	Mr. Propser Adabla	Member	Expertise in TVET
10	Mr. Wisdom Lawson	Member	Expertise in TVET
11	Mrs. Philomena Mawuli Johnson	Member	Executive Secretary of Catholic TVET
12	Mr. Daniel Baffour-Awuah	Member	COTVET Executive Director
13	Mr. Rudolph S. Kuuzegh	Member	Ministry of Education and Science
14	Mr. Brahms Achiayao	Member	Ministry of Trade and Industry
15	Mr. Stephen Amponsah	Member	Ministry of Employment and Social Welfare

3) NVTI

No	Name	Position	Remarks
1	Mr. Godwin A. Y. Kudese	Center Coordinator	Ex-participant (2008)
2	Mr. Edwin Nkrumah	Training Officer, H/D	
3	Ms. Selina Acquah	Training Officer, H/D	
4	Mr. Eric Owusu Agyeman	Assistant Registrar, Testing Dept.	
5	Mr. Samuel Colling Keelson	Principal Training Officer	Ex-participant (2006)
6	Mr. Emmanuel Nyarkor	Training Officer, PTC	
7	Mr. Laud Emmameuel Mensah	Training Officer, PTC	
8	Mr. Pj Adipah	Training Officer, PTC	
9	Mr. Ibrahim Abaari	Training Officer, PTC	
10	Mr. Emmanuel K Ashie	Training Officer, PTC	
11	Mr. Larry Opoku	Training Officer, NVTI-Dansoman	
12	Ms Esther Samuel	Training Officer, Biriwa C/R	
13	Rev. Fr. Moses Amedeanku	Training Officer, CYO, Sovie	
14	Mr. John Tetley	Training Officer, St. Theresah's Center, Abor	

4) ATTC

No	Name	Position	Remarks
1	Mr. Kwasi Bofo	International Relation Officer	
2	Mr. Robert Danful	Instructor / Welding	Ex-participant (2008)
3	Mr. Samuel Christian Ossei	Head of Welding Department	
4	Mr. J. M. Hoffman	Head of ICT	

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5	Mr. Vincent Heitley	Instructor / ICT	
6	Mrs. Lydia Boardaa	Instructor / English	
7	Mrs. Veronica Manu	Instructor / Science	
8	Mr. Nyarko Asare	Instructor / Mathematics	
9	Mrs. Baaba Cobinna	Instructor / Entrepreneurships	
10	Mr. Seth Appiah	Instructor / Science	

5) Accra Polytechnic

No	Name	Position	Remarks
1	Mr. Stephen Agyemang	Lecturer, Mechanical Engineering Dept.	Ex-participant (2008)
2	Mr. Michael Adjah	Lecturer, Mechanical Engineering Dept.	Ex-participant (2006)
3	Mr. Wilson Amenyah	Lecturer, Mechanical Engineering Dept.	
4	Mrs. Adelaide Owusu-Mensah	Lecturer, Administration	
5	Mrs. Aaron Debrah	Administration	
6	Mr. Francis Yeboah	Lecturer, Mechanical Engineering Dept.	Ex-participant (2005/06)
7	Mr. Emmanuel Oman	Head of Dept., Mechanical Engineering Dept.	Member of JCC
8	Mr. Deku Antony	Lecturer, Plant Engineering	
9	Mr. Peter Nyamor	Lecturer, Plant Engineering	
10	Mr. Richard Okwabi	Lecturer, Plant Engineering	
11	Mr. William Anthony	Lecturer, Plant Engineering	
12	Mr. Caroline Anneg	Lecturer, Communication skills	
13	Mr. Kwame Ampadu	Lecturer, ICT	

(6) Conferences, Workshops, Meetings in Ghana

- 1) Joint Coordinating Committee (JCC)

No.	Date	Participants
1	23 Jul. 2009	COTVET Sec, COTVET Board, MoE, MOEW, NCTE, NVTI, NVTI/PTC, ATTCC, Accra Polytechnic, Embassy of Japan, TVETS Project, JICA Ghana Office

2) Workshops on the pilot activities

No.	Date	Name of Workshop	Participants
1	11-13 Mar. 2008	Occupational Standard Generation	NVTI technical team
2	17-19 Mar. 2008	Occupational Standard Generation	Accra Polytechnic technical team
3	2-5 Jun. 2008	Validation of Occupational Standard	Accra Polytechnic technical team
4	2-4 Jul. 2008	Validation of Occupational Standards Generation and Unit/Module Specification Training	NVTI technical team
5	25 - 28 Aug. 2008	Occupational Standard Generation	ATTCC technical team
6	9-11 Sep. 2008	Unit/Module Specification Training	Accra Polytechnic technical team
7	23-25 Sep. 2008	Learning Materials Writing Training	NVTI technical team
8	15 Oct. 2008	Occupational Standards Generation	ATTCC technical team
9	21-23 Oct. 2008	Learning Materials Writing Training	NVTI technical team
10	30 Oct. 2008	Unit/Module Specification Writing	Accra Polytechnic technical team
11	5-6 Oct. 2008	Unit/Module Specification Writing	Accra Polytechnic technical team
12	24-25 Nov. 2008	Facilitator Training	NVTI technical team
13	3 - 4 Dec. 2008	Unit/Module Specification Writing	ATTCC technical team
14	9 Dec. 2008	Unit/Module Specification Writing	Accra Polytechnic technical team
15	10-12 Dec. 2008	CBT Facilitating Skills	NVTI technical team
16	22 Jan. 2009	Unit/Module Specification Writing	ATTCC technical team
17	10 Feb. 2009	Unit/Module Specification Writing	ATTCC technical team

18	16-20 Feb. 2009	Unit/Module Specification Writing	Accra Polytechnic technical team
19	10-11 Mar. 2009	Unit/Module Specification Writing	ATTC technical team
20	15-17 Apr. 2009	Unit/Module Specification Writing	ATTC technical team
21	11-15 May 2009	Support Note & Learning Material Development	ATTC technical team
22	20-22 May 2009	Assessors & Internal Verifiers Training	NVTI technical team
23	28-29 May 2009	Unit Specification Writing	Accra Polytechnic technical team
24	10-12 Jun. 2009	Learning Material Writing	ATTC technical team
25	16-18 Jun. 2009	Generic Learning Material Writing	NVTI technical team
26	25-26 Jun. 2009	Learning Material Writing	Accra Polytechnic technical team
27	15-17 Jul. 2009	Learning Material Writing	ATTC technical team
28	21-22 Jul. 2009	Learning Material Writing	Accra Polytechnic technical team
29	27-28 Jul. 2009	Electronics External Verifiers Training	NVTI technical team
30	29-31 Jul. 2009	Generic Learning Material Writing	NVTI technical team
31	11-13 Aug. 2009	Facilitator/Assessor Training	ATTC technical team
32	18-19 Aug. 2009	Learning Material Writing	Accra Polytechnic technical team
33	25-27 Aug. 2009	Generic Learning Material Writing	NVTI technical team

3) Other Conference

No.	Date	Title of Meeting	Venue	No. of participants
1	26 Feb, 2009	Dissemination Conference for Result of Baseline Survey	ERATA Hotel, Accra	50

(7) Products as result of Project Activities

No.	Title of Products	Date	Format

1	Curriculum Development Guidelines	June 2007	PDF
2	How to Establish Industry Needs (Needs survey/assessment)	August 2007	Ring book
3	Proposed COTVET Conditions of Service	October 2007	PDF
4	TVET Institutions in Botswana and Lessons Applicable to Ghana	May 2007	PDF
5	National Assessment Guidelines	April 2009	PDF
6	Guidelines of COTVETS Standing Committees	December 2007	PDF
7	Advantages of Implementing Competence-Based System	April 2007	PDF
8	Report on Ghana TVET Study Trip	May 2007	PDF
9	National TVET Qualification Blueprint	February 2008	PDF
10	Guide Certification	January 2008	PDF
11	Guidelines Establishment of COTVET Vision, Mission and Objective	October 2008	PDF
12	Reform of TVET System in Botswana - Lessons for Ghana	May 2007	PDF
13	Report on Study Trip to Kumasi, Takoradi and Cape Coast	July 2007	PDF
14	Trainer of Trainer Method and Piloting Activities for Competency-Based Training in Ghana	August 2007	PDF
15	Guidelines for Training of Trainers (TOT) and Piloting	September 2007	PDF
16	Operationalisation of COTVET - Piloting of CBT	December 2007	PDF
17	Manual for Generation of Occupational Standards	February 2008	PDF
18	Draft Job Descriptions and Staff Requirements for COTVET	December 2007	PDF
19	Criteria for Selection of Pilot Institutions	August 2007	PDF
20	Framework for Piloting CBT in Mechanical Engineering	October 2007	PDF
21	Review of CPTC Recommendations on Membership of Standing Committees of COTVET Board	December 2007	PDF
22	Materials for NVET	January 2009	PDF



23	Guide to Research/Survey Methodology	December 2007	Ring Book
24	Report of Baseline Survey on Competency Based Training	December 2008	Book
25	REPORT ON TRAINING WORKSHOPS from March to September 2008	March 2009	Ring Book
26	REPORT ON TRAINING WORKSHOPS from October 2008 to July 2009	(Draft)	Ring Book

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Annex 6: Minutes of Workshop on the CBT Pilot Activities of the Project (On 20th August, 2009)

1.0 VENUE: Japan International Cooperation Agency (JICA) Ghana office

2.0 DATE: 9:30AM- 11:45AM, 20th August, 2009

3.0 REGISTRATION: 9:00AM – 9:30AM

4.0 ATTENDANTS: Attached as appendix I

5.0 INTRODUCTION:

Ms. Sae Kojima, Research Management of the Mid-Term Review Mission for TVETS Project in Ghana was the MC. She introduced the members of the mission and the representatives of JICA Ghana. She gave a brief introduction of the purpose of the discussion and the program lined up. She then asked Mr. Daniel Baffuor-Awuah of COTVET to do the opening remarks.

6.0 OPENING REMARKS:

In the beginning of his opening remarks, Mr. D. Baffuor-Awuah, Executive Director of COTVET asked the participants from the various institutions to introduce themselves. After the introduction, he welcomed the mission team of the mid-term review and thanked everyone present for making time to attend such an important mission. He however lamented over the gender imbalance of the group and appealed it improves. His next statement was to compliment JICA for assisting COTVET to establish and said he will do all he can for the TVETS Project to be successful. To the participants, he thanked them for answering the questionnaire that were administered to them and said it was for a purpose. He then asked them to feel comfortable and contribute meaningfully to the meeting.

7.0 PRESENTATION BY MR. NAKANO:

Mr. Raimel Nakano, Senior Advisor of TVET made a presentation on his observation of TVET system in Ghana and so his presentation was based on the few weeks he has been in Ghana. Below was his presentation:

What I have studied in Ghana.

7.1 Conventional Vocational training Scheme:

- Categorized vocational training driven by the ministry of education.
- Competency-Based Training Scheme.
- Client driven Vocational training- Some industries gave their standards of occupation so that it can be adopted in their training contents (Curriculum).
- Finding out the new training contents
- Making up training materials- materials are written in details which are suitable for the training.
- Trainers training, assessors, training etc- executing facilities training.
- Training course should be authorized by ITAC- trainees provided to the industries should exhibit skills and competencies.

- Spread out the CBT system nation wide.

7.2 Nobles Oblige:

- Responsibility to the society- the ability to train workforce or the labour force to suite the needs of industries in order to develop the nation.
- Quality of Life- good skills workers are being produced to the industries therefore CBT facilitators are the frontier line to the production sector.

7.3 Questions one should ask:

- You should know yourself?
 - What I do know?
 - Yes I know or yes I can because I have the knowledge, I have been trained and gained experience.
 - No I don't know because I don't have any information.

In the presentation above, Mr. Nakano stressed the need for participants to have an influence over the society by being more proactive and responsible for the improvement of life in the society. This he said can be done by churning out quality products for the labour force in Ghana and in the world as a whole. He also urge participants to train learners to say yes I know or yes I can because I have been trained and so I have the experience or the vice versa. He then used the can – can't analysis to demonstrate the Nobles Oblige theory.

He also emphasized the need to take a step at a time but said, the first step is very important because the future depends on the present.

8.0 DISCUSSION:

The purpose of the discussion was to know about the progression CBT is making, the challenges, probable solutions and the future of CBT. In view of this the mission identified three main themes which constitutes the first three themes as shown below:

1. Material development
2. Involvement of Industry and Private sector.
3. Pedagogy (teaching methods)

Mr. Raimel Nakano then asked the participants to group into four different groups. This was to determine other themes which had not been identified. Six other themes were identified. They were as follows:

4. Consumables
5. Infrastructural development and tools.
6. Motivation of trainers

7. Certification /Quality Assurance issues.
8. Acceptance of CBT.
9. Involvement of other traditional Institution.

Each group was asked to select two themes and discuss based on their order of importance or priority.

9.0 PARTICIPANTS IN THE FOUR GROUPS: Attached as Appendix II

10.0 PRESENTATION ON TWO THEMES BY THE VARIOUS GROUPS:

Group 1- The presentation of the group's priorities was briefly made by Mr. Emmanuel Oman. Their top most priority was theme was material development. They identified the some problems associated with material development and solutions to the problems. They presented theme seven (7), certification as their next priority. They listed the problems and solutions to the problems.

Group 2 – Mr. Maxwell kofi Zanu on behalf of the group explained theme two (2), involvement of industry as the major problem that affect the CBT. The group made some way out of that problem. They also presented theme one (1), material development and theme four (4), Consumables as their other precedence and suggested some solutions to the problems.

Group 3 – Mr. John Ocran highlighted on behalf of the group them seven (7), certification as the major problem that affect the CBT. The also came up with various solutions. They also presented motivation as their second prioritized problem and its solutions.

Group 4 – Mrs. Adelaide Owusu Mensah on behalf of the group explained theme two (2), involvement of industry as the major problem that affect the CBT. The group made some way out of that problem. They also presented theme one (1), material development and its possible solutions.

(Group work has been attached as Appendix III)

However, at the end of the presentation and discussions Mr. Raimel Nakano made a recommendation that the various stakeholders to continue to debate, meet regularly to exchange ideas and discuss the challenges facing the CBT and give suggested solutions to the problems especially during regular CBT workshops.

11.0 CLOSING REMARKS:

The closing remarks were by Mr. Hitosi Sato, Deputy Resident Representative-JICA, Ghana. In his remark, he apologized for being late. He further explained the purpose of the TVETS project supported by JICA in enhancing institutional capacity and improving the delivery of TVET in Ghana. He highlighted on the major challenges of the project which was recruitment of adequate staff of COTVET and the setting up of the Board of COTVET. He commended the Government of Ghana and all stakeholders and



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said the project will continue to support COTVET in the implementation of the CBT programme in the various institutions. He thanked all for their cooperation and participation
(Details of the closing remarks has been attached as Appendix IV)

APPENDIX I: ATTENDANTS

1. Mr. Daniel Baftuor Awuah, Executive Director Of COTVET
2. Mr. Kenji Kimura, Chief Adviser, TVETS Project
3. Mr. Yoshio Ishiyama, Project Administrator, TVETS Project
4. Mr. Stephen Turkson, Technical Officer, TVETS Project.
5. Mr. Eric Odotei, Technical Officer, TVETS Project
6. Ms. Gloria Commodore, Assistant to the Chief Adviser, TVETS Project
7. Mrs. Dzigbodi Okrofu, Administrative Assistant, TVETS Project
8. Mr. O. Fatonade, Dean of Engineering, Accra Polytechnic
9. Mr. Emmanuel Oman, Head of Plant Engineering Department, Accra Polytechnic
10. Mrs. Adelaide Owusu Mensah, Head of Liberal Studies Department, Accra Polytechnic
11. Mr. Baafi Ameyaw, Pricipal of ATTC
12. Mr. Samuel Ossci, Head of Welding Department, ATTC
13. Mr. John A. Ocran, Deputy Director of Testing, NVTI- Headquarters
14. Mr. Owusu Agyemang, Instructor, NVTI-Headquarters
15. Mr. Maxwell Kofi Zanu, Center Manager, NVTI-Pilot Training Centre
16. Mr. S. C Keelson , Head, Department of Electronics, NVTI-Pilot Training Center
17. Mr. Stanley Nyarko, Instructor, NVTI-Pilot Training Centre
18. Mr. Kwasi BofoBofo

Also present were:

1. Mr. Hitosi Sato, Deputy Representative, JICA Ghana
2. Mr. Raimel Nakano, Technical and Vocational Education and Training, OVTA
3. Ms Sueri Muto, Planning of Technical and Vocational Education and Training, JICA Headquarters
4. Ms. Chie Tsubone, Junior Researcher, Social Development Department, Global Link
5. Ms Sae Kojima, Research Management, JICA Headquarters
6. Mr. Yuji Wakasugi, Assistant Resident Representative, JICA-Ghana
7. Ms. Mama Owusu, Educational Adviser, JICA-Ghana
8. Mr. Ichiro Fukuhara, Assistant Resident Representative, JICA-Ghana
9. Mr. Yoshisuke Miki, Local Consultant (Evaluation), JICA-Ghana Management



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APPENDIX II: NAMES OF PARTICIPANTS IN THE FOUR GROUPS

Group 1

1. Mr. Emmanuel Oman
2. Mr. Stanley Nyarko
3. Mr. Eric Odotei, Technical Officer, TVETS Project
4. Mr. O. Fatonade, Dean of Engineering, Accra Polytechnic
5. Mr. Miki

Group 2

1. Mr. Stephen Turkson, Technical Officer, TVETS Project.
2. Mr. Samuel Ossei
3. Mr. Ichiro Fukuhara
4. Mr. Maxwell Kofi Zanu, NVTI, PTC

Group 3

1. Mr. Kwasi BofoBoafo
2. Mr. John Ocran
3. Mr. S. C Keelson
4. Mr. Yoshio Ishiyama

Group 4

1. Mr. Adelaide Owusu Mensah
2. Mr. Owusu Agyemang
3. Mr. Baafi Ameyaw
4. Mr. Kenji Kimura, Chief Adviser, TVETS Project

APPENDIX III: PARTICIPATORY FACILITATION (GROUP WORK)

Group 1:

Themes:

-1. Material Development

The challenges they identified under the theme were as follows:

- a. Participation of industry
- b. Expertise
- c. Reproduction of materials.
- d. Risk of Narrow scope
- e. Relevance to industry.

Suggested solutions to each problem above

- a. Formation of empowerment of trade association, ITAC and involvement of industry in materials.
- b. Training and engagement of consultants
- c. Procurement of computers and photocopier
- d. Adequate learning time
- e. Validation by industry

Their second priority was theme 7 certification.



Problems faced

- a. Progression
- b. Acceptance for employment
- c. COTVET's role
- d. Fragmented certification.

Suggested solutions to each of the challenges being faced

- a. Memorandum of understanding among stakeholders and Enactment of legislation on Qualification framework
- b. Participation in CBT process
- c. Proactiveness of COTVET
- d. Harmonization of certification

Group 2:

Themes;

-2. Involvement of industry

Suggested solutions

- a. Formation of trade association
- b. Active trade association
- c. Government of Ghana' policy to direct industry

-1. Material development

- a. Identification of technical experts
- b. Develop competencies
- c. Resource for material development e.g. computers, scanners, etc.

-4. Consumables

- a. Locally available materials
- b. Proper planning
- c. Efficient use of resources
- d. Maximize industry support to CBT

Group 3

Their first priority was on certification. They stated the challenges as:

- a. Articulation
- b. Recognition by industry
- c. Portability – international

They gave out the solutions as:



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- a. Greater involvement of stakeholders
- b. Advocacy
- c. Assessment and certification bodies adequately resources
- d. Involvement of professional bodies
- e. Registration and licenses of CBT assessors

Their second priority was motivation which included:

- a. Challenging facilitators
- b. Experience facilitators difficult to attract

Again their solutions were:

- a. Insurance scheme for trainers/facilitators
- b. Establish linkage with industry for OJT
- c. Training and retraining of facilitators
- d. Professional qualification should be comparable to academic qualification
- e. Condition of service of facilitators should be comparable to industry

Group 4

Their first priority was: involvement of industry and P.S.

The challenges they articulated were as follows:

- a. Lack of industrial attachment for trainees
- b. Lack of awareness on the part of industrial practitioners
- c. Inadequate industries to absorb the trainees
- d. Involvement of industry not motivated to participate

However their solutions were:

- a. Government establish favorable policies
- b. Media participation-national sensitization exercise
- c. Assistance from government for individuals to set up industries
- d. Encouragement of private industries by government

The next priority was material development.

The challenges they presented were:

- a. Lack of motivation for experts from institutes
- b. Lack of equipment and logistics
- c. Lack of experts

- d. Lack of standardized method of developing materials
- e. Inadequate funding

The solutions for the above challenges were;

- a1 Payment of allowances
- a2 Recognition of experts
- b. National involvement and commitment
- c. Motivation of experts
- d. Development of national standards (Harmonization)
- e. Commitment from government
- f. Going out of Accra to a quiet place to develop CBT Materials

APPENDIX IV: CLOSING REMARKS

Good morning, Ladies and Gentlemen, It is my great honor to be here to deliver some brief comments on behalf of JICA.

First of all, I have to apologize for not being here with you all morning, however I'm confident you have had fruitful discussions on the progress of CBT piloting .

JICA Ghana has been working to support the education sector in Ghana, including the TVET subsector for a long period. This is with technical support to the Government of Ghana's self-efforts in reforming the TVET sector as one of the key pillars of formal education. As you may know, JICA's support of the TVET sector is longstanding;

- First with the development of the master plan for TVET reform in 2000.
- Then, according to the plans and recommendations of the Master Plan, continued to emphasize the importance of TVET in several important documents.
- Which then contributed to the formulation of the COTVET law.

As you all know, the main purpose of the TVET project supported by JICA is to technically enhance the institutional capacity to conduct TVET reform and improve TVET delivery mainly through supporting self-efforts of COTVET and the piloting institutes for introducing the Competency Based Training (CBT); as the CBT curriculum delivery methodology places strong emphasis on students acquiring practical skills for employment in the world of work.

The project particularly aims to:

- support the institutional capacity development of COTVET,
- support the enhancement of operational mechanism over TVET delivery mainly based on lessons learned and acquired through strengthening the organizational capacity of TVET pilot Implementing Institutions such as NVTI, ATTC and Accra Polytechnic,
- and support the improvement of the mechanism to introduce CBT on other technical areas.

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Progress made so far include: a series of CBT workshops, training in Japan, provision of equipments and the start of CBT piloting at NVTI.

However, we continue to face some challenges too; although COTVET as a board has been re-inaugurated, the board is still in its infancy stage facing challenges such as budgetary constraints and recruitment of adequate staff numbers amongst others, the biggest challenge so far is for the board to complete its physical setup, in order to proceed to setting up the standing committees who will in turn operationalise COTVET.

Today's discussions, which forms part of the TVETS project mid-term review, would have given us some idea about the current situation and challenges in piloting CBT, as well as helping in finding a clearer way forward in our joint effort to develop the industrial demand-driven training and practical skills that the CBT method promises to students.

JICA commends the Government of Ghana, and especially all key stakeholders present for today's discussion, for the various efforts that have been made to develop the human resources of Ghana through TVET. JICA believes that a developed human resource base is essential for every country. Japan as a country has been developing its human resource base, as a springboard for economic growth, realizing that it did not have the natural resources.

As such, this project will continue to support the self-efforts of COTVET and its implementation institutions such as the ATTC, NVTI and Accra Polytechnic in its pilot implementation of the TVET reform.

We commend you for your unrelenting efforts to reform the TVET sector, and believe you would utilize this new CBT method to build the capacity of your institution, and through your lessons learnt; to contribute to the other areas and institutes for the industrial development of the human resource in Ghana. Thank you for your collaboration with the TVETS Project.
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Annex 7: Minutes of Stakeholders Meeting

- 1.0 VENUE: Japan International Cooperation Agency (JICA) Ghana office
- 2.0 DATE: 9:00AM – 12:00PM, 26th August, 2009
- 3.0 REGISTRATION: 8:30AM – 9:00AM
- 4.0 ATTENDANCE: Attached as appendix I
- 5.0 INTRODUCTION:

Ms. Sae Kojima, Research Management of the Mid-Term Review Mission for TVETS Project introduced Mr. Daniel Baffuor-Awuah of COTVET as the chairperson for the program. In his introduction, he thanked JICA and welcomed participants present for coming to the meeting. He asked the mid-term review team and all participants to introduce themselves. After the introduction he introduced Mr. Hitoshi Sato, Deputy Representative, JICA Ghana, Mr. Nick Opoku, Board Chairman of COTVET and Mr. Paul N. Buatsi, Chief Director, Ministry of Education to give their opening remarks.

6.0 OPENING REMARKS:

Mr. Sato was the first to give his opening remarks. He thanked all participants for making it to the programmed. He commended the government of Ghana for setting up COTVET and said there is more to be done in terms of establishing committees within COTVET such as ITAC and the TVET qualification committee. He further explained the projects main purpose which is to strengthen the organizational capacity of COTVET, and it's implementing institutions to deliver the new TVET system and said the mid-term review mission has sought to monitor the projects relevance, effectiveness, efficiency, impact and sustainability, as well as promoting dialogue between all key stakeholders in confirming lessons learnt, making recommendations and ultimately in finding a clearer way forward for the project. He thanked everyone that has contributed to the review, and as this is only the half-way point for the project and that JICA look forward to a fruitful and cooperative working relationship for the remaining period.

(Details of the opening remarks has been attached as Appendix II)

Mr. Nick Opoku, in his remarks explained that due to the delay of the establishment of COTVET, COTVET has inadequate staff support therefore will be recruiting key staff by October this year and will ensure that COTVET will assiduously work hard to catch up. He also

asked participants to point out the short falls of COTVET and suggest solutions in improving the performance of COTVET. He thanked JICA for supporting COTVET and thanked all participants present for making it to the meeting.

Mr. Paul Buatsi was the next to make a speech; he first of all thanked JICA on behalf of the Ministry of Education for supporting TVET in Ghana. He made a brief statement by asking all participants to analyze the problems and suggest workable solutions to the problems so we can make the project a successful one and see the way forward of the project.

7.0 OUTLINE OF "TVETS" PROJECT

Mr. Kenji Kimura, Chief Adviser explained the outline of TVETS project, such as Overall Goal, Project purpose, Outputs. After his presentation, he asked Mr. Eric Odotei, Technical Officer, to elaborate on the three main output of the project.

8.0 SUMMARY OF MID-TERM REVIEW FOR TVETS PROJECT

Ms. Chie Tsubone Explained the summary of review, and Ms.Saeri Muto gave a presentation on recommendations of the Mid-term Review.

0.1 RECOMMENDATIONS

Recommendation was based on evaluation.

1. Support in developing Competency Based Training (CBT) system
2. Support in COTVET establishment

9.0 QUESTIONS AND ANSWERS

The Mr. Buatsi was the first to ask a question, he inquired that since there are conflicting methods of CBT by the other partners what would be the bench mark for JICA? And also with regards to the In-plant training or Attachment there is a challenge industries are facing because training given formally and what they encounter at the field is quite different and there will be overcrowding in the industries so recommends that if its possible to have prototype training?.

In an answer to his first question, Mr. Baffour Awuah said COTVET will see to the harmonization of CBT in the country and make approval of a national standardization.

Mr. Nakano answered the second question; he explained that certain part of based technology needs to be incorporated into the training content or curriculum development and should be based on industrial needs e.g. Safety management. For this reason trainees must be trained based on occupational standards to avoid accidents at the industries. As a result of this we need the cooperation from the industries.

Mr. Ofori-Bruku, President, Institute Inc. Engineers, lamented over the fact that CBT industrial attachment is low because what is being taught in the schools is different from what is required in the industries. He said most trainees that come to the industries have only the theoretical knowledge of the field but no practical experience consequently lack the basic skills needed. He was of the opinion that industrial attachment is very necessary.

Mr. A. Debre, Project Manager, GETFUND, also made his contribution. He said there is the need to identify the training points and be concertize about the needs of the industries and edge COTVET in contacting industries such as, Ash gold in the mining sector and collaborate with them to have knowledge of their needs so we can train trainees to suit their needs and avoid industries importing skilled labour in the country.

Mr. Dennis Owusu, Vice Chairman, Ghana National Association of Garages made a remark on the fact that TVET is a failure because they have neglected the private sector because most students after school go to the informal sector for training. He asked COTVET to build training centers and resource centers in view of the fact that requisite training required are not done in the schools.

Mr. Nakano mentioned that the project is a pilot project. The three areas which is being piloted needs to be developed and evaluated to see if the project will be successful before replicating it to other areas.

Mr. Peter Darras, Education Economist, World Bank said the involvement should not be only attachment but also get involved in the curriculum development. Industries have to take part in providing skills.

10.0 TVETS Project Plenary Session

Chaired by Mid Term Review team and facilitated by Mr. Nakano.

AGENDA

-1. Crucial issues in harmonization of CBT in TVET institution in Ghana.

Contributions

Mr. Darras said the problems related to this issue are due to standardization and CBT methods by different partners. COTVET should endeavor to improve employment in TVET establishment, improve the technology in the informal and formal sectors, decrease poverty and increase productivity.

Mr. Asamoah Duodu responded to Mr. Darras statement. He said there is a committee working on that issue but the critical issue is focusing on the urgency to achieve all the outputs of the project and the limited time frame of the project.

Mr. Opoku on the other hand said industries must be incorporated into the CBT training and must ensure that industries accept CBT.

-2. Ensuring industry support and involvement in planning and implementing industrial attachment.

Contributions

Mr. Maxwell Kofi Zanu, Asst. Center Manager, NVTI (PTC) in his remarks said to ensure that industries are involved in CBT the various trade associations must be identified and strengthen.

Mr. Darras made a point that industries needs incentives and should be supported in other to persuade them in training trainees.



DBA

Mr. J. A. Ocran, NVTI as well said government of Ghana should make a policy which will ensure that industries products are patronized for industries to be engrossed.

Mr. Baffour Awuah in responds to Mr. Ocran's comment said under the Skills Development Funds (SDF) there is an incentive to the industries so that they can participate and also know their needs.

Mr. Dennis Owusu, said for the CBT to be successful there is a need to recognize the formal and informal sector and effectively involve them in the CBT.

-3. Strategy to achieve the project purpose within the cooperation period.

Contributions

Mr. Frank Quist, Ag. Director, HRD, Ministry of Education Social Welfare, said the period left is short therefore there is the need to accelerate the procedure within the cooperation period.

Mr. Ocran in addition to that said the fundamental problem was the project started before the establishment of COTVET and there must be acceleration of the project.

Mr. Oman however said for the project to accelerate, Japanese expert and consultants in the field of Mechanical engineering and welding must be present to validate their programmed. JICA should be flexible with their financial year for procurement to be done quickly.

Mr. Baffour Awuah also said we need to determine if the outputs can be achieved within the limited period or review the outputs to ascertain whether the outputs are realistic and can be achieved within the time frame.

-4. Priority actions need to be done at COTVET.

Contributions

Mr. Ameyaw lay emphasis on on the fact that all structures and personnel of COTVET should be put in place immediately for the project to be successful.

Mr. Quist said all activities can be done concurrently in other to achieve the projects outputs.

Mr. Odotei talked about the clarification of the accreditation system. He said in terms of qualification accreditation the various institutions are awarding qualification including COTVET and this is going to create a problem in future.

Mrs. Philomena Johnson however said output 1 should be given special consideration because all the sub outputs are very important.

8.0 WAY FORWARD CLOSING

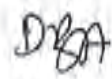
Mr. Baffour-Awuah thanked everybody especially JICA mission team. He said the way forward is that there is more work to be done and they have the willpower and zeal to support JICA.

Mr. Asamoah Duodu made it clear that there is a need to extend the project in order to strengthen the capacity building of COTVET due to the delay of establishment of COTVET and the limited time period of the project.

Mr. Sato nevertheless said he was not in a position to extend the project period however the government of Japan will send out final evaluation team to review the project and based on their evaluation if there is a need to extend the project in order to achieve the outputs will be considered.

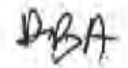
9.0 CLOSING REMARKS

The closing remarks was made by Mr. Baffour-Awuah, in his remarks asked all stakeholders to be committed and contribute extensively to the success of the project and welcomed all suggestions, recommendation and comments to facilitate the progress of the project.



APPENDIX I: NAMES OF PARTICIPANTS

1. Mr. Paul N. Buasti, Chief Director, Ministry of Education
2. Mr. Nick Opoku, Chairman, COTVET Board
3. Ms. Ama Masua Ohene, COTVET BOARD
4. Mr. Sharon Femuku, COTVET BOARD
5. Mr. Wisdom Q. Lawson, COTVET BOARD
8. Mr. Daniel Baffuor Awuah, Executive Director of COTVET Mr. Emmanuel Oman, Head of Plant Engineering Department, Accra Polytechnic
7. Mr. Acquah Harrison, COTVET
8. Mr. O. Fatonade, Dean of Engineering, Accra Polytechnic
9. Mr. Baafi Ameyaw, Pricipal of ATTC
10. Mr. Samuel Ossei, Head of Welding Department, ATTC
11. Mr. John Ocran, National Vocational and Technical Institute (NVTI)- Headquarters
12. Mr. Godwin Aykideye, NVTI, Headquarters.
13. Mr. B. O Ayetei Sowah, Co-coordinator, NVTI
14. Mr. S. C Keelson Coordinator of NVTI CBT technical team, NVTI-PTC
15. Mr. Maxwell Kofi Zanu, NVTI-PTC
16. Mr. Asamoah Duodu, Educatrionist, Ghana Education Service (TVED)
17. Mr. Stephen O. Adjapong, NABPTEX
18. A. Debre, Project Manager, GETFUND
19. Mr. Peter Darras, Education Economist, World Bank
20. Mr. Micheal O. Presco, Member, Association of Ghana Artisans.
21. Mr. K. Amponsah –Oteng, National Chairman, Association of Ghana Artisans.
22. Mr. Dennis Owusu, Vice Chairman, Ghana National Association of Garages
23. Mr. John Nimo, Secretary, Ghana National Association of Garages
24. Mr. Alhaji S. M. Dakpo, Regional Chairman, Ghana National Association of Garages
25. Mr. Ofori-Bruku, President, Institute Inc. Engineers,
26. Mr. Frank Quist, Ag. Director, HRD, Ministry of Education Social Welfare
27. Mr. Ralph Ocloo, Consultant, Ghana Electronics Service Training Association
28. Mr. David R. Foley, Electronic Technician, Ghana Electronics Service Training Association



29. Mr. Solomon Adjivon, Ghana Electronics Service Training Association
30. Mrs. Philomena Johnson, Planning Analyst, National Catholic Secretariat
31. Mr. Emmanuel Morrison, PETAG
32. Mr. Ahmed Iddurisu, PETAG

Also present were:

1. Mr. Hitosi Sato, Deputy Representative, JICA Ghana
2. Mr. Raimei Nakano, Technical and Vocational Education and Training, OVTA
3. Ms Saeri Muto, Planning of Technical and Vocational Education and Training, JICA Headquarters
4. Ms. Chie Tsubone, Junior Researcher, Social Development Department, Global Link
5. Ms Sae Kojima, Research Management, JICA Headquarters
6. Mr. Yuji Wakasugi, Assistant Resident Representative, JICA-Ghana
7. Ms. Mama Owusu, Educational Adviser, JICA-Ghana
8. Mr. Ichiro Fukuhara, Assistant Resident Representative, JICA-Ghana
9. Mr. Yoshisuke Miki, Local Consultant (Evaluation), JICA-Ghana
10. Mr. Kenji Kimura, Chief Adviser, TVETS Project
11. Mr. Yoshio Ishiyama, Project Administrator, TVETS Project
12. Mr. Stephen Turkson, Technical Officer, TVETS Project.
13. Mr. Eric Odotei, Technical Officer, TVETS Project
14. Ms. Gloria Commodore, Assistant to the Chief Adviser, TVETS Project



**APPENDIX II: Speech for TVETS project mid-term review stakeholder meeting on
draft review result and opinion exchange at JICA Ghana Office, Accra, 26th
August 2009**

Good morning Ladies and Gentlemen,

On behalf of JICA, it is my great honor to be here to deliver brief opening remarks.

Most of us here today know of the numerous education reforms that have taken place in Ghana; most recent of which being in 2007.

Yet, alongside these reforms, a not too touted TVET reform has also been ongoing since the year 2000. At the heart of the TVET reform is the need for a central coordinating body, a demand driven TVET, and a National Qualification System.

And to this, the Government of Ghana must be commended for setting up COTVET, recognizing that TVET goes wider than the public Technical Training Institutes and for including a skills development policy in the revised ESP.

However, and as we all know, more remains to be done, including the setting up of the committees within COTVET such as:

- The Industry Training Advisory Committee: to identify the skills needs of Ghana from industries, trade associations, etc.
- The TVET Qualifications Committee: to institute clear policies to address academic progression difficulties facing the TVET system
- And ultimately, to support COTVET with a sustainable source of funding in order for it to implement the TVET policy fully.

This TVETS project, even before COTVET came into being, had been working with relevant MDAs such as the Ministries of Education, Manpower (now Employment), NCTE amongst others to facilitate the TVET reform. The projects main purpose is to

strengthen the organizational capacity of COTVET, and its implementing institutions to deliver the new TVET system.

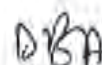
Having been running for half of its expected duration, the mid-term review has sought to monitor the projects relevance, effectiveness, efficiency, impact and sustainability, as well as promoting dialogue between all key stakeholders in confirming lessons learnt, making recommendations and ultimately in finding a clearer way forward for the project.

So, today's stakeholder meeting which forms part of the review, is to share with you the draft results of the mid-term review.

Before we start, may I take this opportunity to thank everyone here that has contributed to the review, and as this is only the half-way point for the project; we look forward to a fruitful and cooperative working relationship for the remaining period.

Together, we can reform the TVET subsector to be relevant for employment in the world of work in Ghana and beyond.

Thank you
Medaase .



2. 活動フローチャート (案)

ガーナ「技術教育制度化支援プロジェクト」活動フローチャート (案)

留意点：
 ●各BOX内の活動は、原則時系列順に配置（上位の活動を実施してから、下位の活動に移る）。
 ●各活動のカッコ内の番号は、当初のPDMの活動番号を業す。
 ●第3年次(9月～3月)及び第4年次の活動については、今後実施予定のものを記載。うち、(新)印のあるものは、当初のPDMに記載がなく、今回新規追加したもの。
 ●実績BOXに記載のものは、該当年次に実施予定。破線BOXに記載のものは、翌年次への移行の余地があるもの。

	第1～3年次 (～2009年8月)	第3年次 (2009年9月～)	第4年次
成果1： TIVET実施機関の組織強化、人材育成及びCBTに基づく教育・訓練の試行を通じ、CBT導入に係る実施体制が強化されるプロジェクト目標。 TIVET実施機関の組織強化、人材育成及びCBTに基づく教育・訓練の試行を通じ、CBT導入に係る実施体制が強化される。	(注) ・成果1の活動3は、G/Pを変更したため、案内には、成果2の一部として要請された整理する。 ・成果1の活動4のうち、「カリキュラム開発」については、G/Pを変更して、成果2の一部として要請された。	(1-1) ●COTVET (特)、ITACとその業種別諮問委員会の設立を支援する。 ●(新) COTVETに対し、ガ国内のCBT統一化に関する支援を行う。 (1-4) ●NTOCに対し、職能基準確立支援を行う。 ●TOMCに対し、資格認定基準の確立支援を行う。 (1-5-1) ●(新) COTVETに対し、カリキュラム開発、施行訓練実施に関する手引書作成支援を行う。 (1-6) ●上記活動のモニタリング及び評価	(1-2) ●COTVET職員へのCBT方式導入に関する能力強化を図る（研修、技術支援を通じて）。 (→一部は、第3年次第4四半期から実施) (1-4) ●NTOCに対し、職能基準確立支援を行う。 ●TOMCに対し、資格認定基準の確立支援を行う。 (1-5) ●(新) COTVETに対し、機械工学分野以外での業種諮問委員会設立支援のための手引書作成支援を行う。 ●CBT実施に関する官民協調促進及び関連省庁の理解促進のためのワークショップ等の開催、広報活動を実施する。
成果2： 機械工学分野のCBTが試行校で実施されることにより、TIVET制度化に向けた教訓が蓄積される。	(旧1-3) ●機械工学分野のCBT試行校を選択し、各試行校における試行訓練コースを概定する。 (旧1-4) ●試行校に対し、カリキュラム開発を支援する。 (2-1) ●試行校に対し、シラバス作成を支援する。	(2-1～2-3: CBT開発に関する活動) ●(新) 試行校が、訓練計画を開発する。 ●(新) 試行校が、カリキュラム開発 (要素作業選定及び訓練モジュール開発) を実施する。 ●試行校が、CBT訓練における企業内実務訓練の実施細則と訓練教材を開発する。 ●第三者機関(ITACや産業界)により、CBT教材(シラバス、訓練モジュール等)が承認される。 (2-4～2-5: TOTに関する活動) ●ITAC/試行校が、TOT教材を開発する。 ●試行校において、TOT訓練が実施される。	(旧1-4) ●試行校が開発したカリキュラムの更新手続きをITACが確立する(実施済み?) (CBT試行訓練に関する活動) ●試行校において、CBT教材による試行訓練が実施される。 ●産業界において、企業内実務訓練が実施される。 (2-6-1) ●△△が、CBT試行訓練を評価する。 (2-6-2) ●△△が、CBT試行訓練の評価結果を受けて、職能基準と資格認定基準の形成過程に反映する。 (2-7) ●COTVETが(?), 上記活動のモニタリング/評価を実施する。 (2-8) ●COTVETが(?), 他TIVET訓練機関への上記の試行訓練をフィードバックする。
成果3： 他分野におけるCBT実施のための環境が整備される。 ⇒プロジェクトのスコープから外す。			