Country Name

conducted by Malaysia Office: April 2016

3		•	venient of vocational framing	5 ~ 5 ~ 1 ~		
Malaysia		Needs of Industries in Malaysia				
I. Project Outline						
Background	resource of Malaysia, the human supported (1982-199 elaborate the long-t identified After the	development needed to the most prioritized in resource development I Malaysia through the 90) and the Japan-Man adequate labor policities term expert in labor policities issues to improve the series of the cooperate	alaysian economy were transformed from the production-based to the knowledge-based, human oppment needed to be changed in quantity and quality. Under the national development plans of most prioritized issues were the industrial development for the global competitive market as well as burce development to meet the demand of such industries. While the government of Japan had asysia through the cooperation for the Center for Instructor and Advanced Skill Training (CIAST) and the Japan-Malaysia Technical Institute (1998-2004), further cooperation was requested to mate labor policies to meet the needs for quality human resource of the industries. JICA dispatched expert in labor policy to Malaysia and received the government officers of Malaysia in order to set to improve the vocational training system of Malaysia so as to meet the needs of the industries.			
Objectives of the Project	human resinstructor practiced 1. Overal changi 2. Project	source development is of vocational training in Japan, thereby cond Goal: Malaysian Industry. t Purpose: Ministry of	ngthen the capacity of Ministry of Hun accordance with needs of industries g institutes and introduction of various tributing to meet the needs of a rapidle lustry will have a balanced workforce. Human Resources is able to plan and dustries.	through training of the vocational train y growing and character to meet the needs	of MOHR officers and ing program and systems anging Malaysian industry.	
Activities of the project	accordance with needs of industries. 1. Project site: Eight (8) vocational training institutes (nationwide) (Japan Malaysia Technical Institute (JMTI), Advanced Technology Training Center (ADTEC) Kulim, ADTEC Sha Alam, ADTEC Melaka, ADTEC Batu Pahat, Industrial Training Institute (ITI) Kuantan, ITI Semarahan, ITI Kota Kinabalu) 2. Main activities: (i) training of MOHR officers and instructors of vocational training institutes, (ii) support local industries for improving OJT method by using CUDBAS¹ (Curriculum Development Methodology Based on Ability Structure), (iii) establishment of career guidance course, (iv) introduction of instructors license scheme, instructors training plan, and instructors career plan, and (v) introduction of 5S and Kaizen² activities at each model vocational training institutes. 3. Inputs (to carry out above activities) Japanese Side 1) Experts: 5 persons 1) Counterpart personnel: N.A. 2) Trainees received: 12 persons 2) Land and facilities: Office space, training facilities, support equipment 3) Local cost: salaries to counterpart personnel, training and workshop cost					
Ex-Ante Evaluation	None	Project Period	October 16, 2008 – October 15, 2011	Project Cost	(Ex-Ante) 175 million yen (Actual) 216 million yen	
Implementing Agency	Ministry o	of Human Resources	(MOHR)			
Cooperation Agency in Japan	KRI Inter	national Corporation				

Project on Improvement of Vocational Training System to Keep Meeting with the

II. Result of the Evaluation

<Issues to be considered at ex-post evaluation>

- (1) <u>Indicator for the project purpose</u>: As there was no indicator for project purpose set in the Project Design Matrix (PDM), this ex-post evaluation proposes to judge the achievement of project purpose based on the achievement status of Output 1-5.
- (2) <u>Indicator for the overall goal</u>: PDM set the indicator for overall goal as "reduce the number of foreign workers at the technical level". However, there are other factors that may affect the achievement of this indicator such as the economic situation of Malaysia and Malaysian government labor policy, etc. Therefore, this ex-post evaluation proposes to examine the achievement status of overall goal by using the supplement information such as (i) Community and Employment Support Service (CESS) activities introduced to other institutes, (ii) employment support system introduced to other institutes, (iii) the concept of 5S and Kaizen introduced to other institutes for improvement of management system, (iv) employment status of graduates of 27 vocational training institutes under MOHR, and (v) satisfaction level of the industries on the capacity of graduates from the model vocational training institutes as supplemental information for the overall goal.

¹ CUDBAS was developed in Japan in 1990 and it gives a clearer perspective regarding knowledge, competence and attitude of the employees in doing the work. CUDBAS also helps organizations identify and streamline business processes, reduce training costs, and improve the quality of employee expertise and reduce waste production caused by human error.

² Kaizen is a method to improve quality and productivity by continually making small efforts that add up to a big result. It is a general term that encompasses several techniques including 5S (Sorting, Setting in order, Shining, Standardizing, and Sustaining), Total Quality Management (TQM), etc.

1 Relevance

<Consistency with Development Policy of Malaysian Government at the time of ex-ante evaluation and the project completion>

This project was consistent with Malaysia's development policy of "to develop the market-oriented vocational training program and system" as set forth in the policy documents including the Third Outline Perspective Plan (2001-2010) and the policy target of the National Advisory Council established by the Prime Minister of Malaysia in May 2009.

<Consistency with Development Needs of Malaysia at the time of ex-ante evaluation and the project completion>

This project met the development needs of Malaysia to strengthen the capacity of government vocational training institutes to provide the vocational training meeting to the demand of Malaysian industries since the vocational training system in accordance with needs of industries such as CESS and CUDBAS introduced by the project needs to be further upgraded and disseminated in Malaysia at the time of ex-post evaluation.

<Consistency with Japan's ODA Policy for Malaysia at the time of ex-ante evaluation>

The project was consistent with Japan's Country Assistance Policy for Malaysia (2009) to fall within the priority sector and theme of "cultivating human resources equipped with high-level knowledge and skills".

<Evaluation Results>

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

2 Effectiveness/Impact

<Status of Achievement of the Project Purpose at the time of project completion>

The Project Purpose was achieved by the project completion. Firstly, Community and Employment Support Service (CESS) offices were established at model institutes. Secondly, the project was able to establish the collaboration system among model vocational training institutes, local industries and community through training for 304 CUDBAS manpower resources, organizing 67 company support sessions and establishing the standardized company database format. Thirdly, the employment support system was introduced to model institutes. For example, total 12 Career Counselors were trained and the Employment Support Manual was prepared. Also the project carried out various guidance activities and total 2,206 of students' portfolios were created. Fourthly, the project could establish the management system for keeping on meeting with the needs of industries at each model institutes by introducing 5S and Kaizen concept. For example, 5S and Kaizen related seminars/workshops/courses for staff were organized with total 67 sessions and 4,482 participants. <Continuation Status of the Project Effect at the time of ex-post evaluation>

After the project completion, each model institute has assigned full time staff at CESS offices. The collaboration system among model institutes, local industries and communities has been maintained. Each model institute has continued to provide CESS and update the data of students and company profiles by using the TMS (Training Management System)³ which was developed and managed by MOHR and covered all vocational training institutes under MOHR. Total 27 short courses and CUDBAS workshops were conducted for local industries by the eight model institutes from 2012 to 2014. In addition to this, the eight model institutes organized events and workshops open to local industries and public organizations, targeting total 767 participants from 2012 to 2014. Regarding the employment support system, the eight model institutes continued to conduct employment support activities and to organize 5S and Kaizen related seminars/workshops (see Table 1 and Table 2).

In order to share the knowledge and experience of the project with other vocational training institutes, the MOHR, through the Center for Instructor and Advanced Skill Training (CIAST) has organized sharing sessions among the CESS and CUDBAS officers of training institutes. Also the information sharing among the training institutes through the Regional CESS Committee (RCC) and the Central CESS Committee (CCC)⁴ have been organized regularly.

<Status of Achievement of the Overall Goal at the time of ex-post evaluation>

The Overall Goal was partially achieved. At the ex-post evaluation, it was confirmed that the CESS activities, the employment support system, the collaboration system among vocational training institutes, local industries and community, the concept of Kaizen and 5S have been introduced to all 32 vocational training institutes under MOHR including 8 model

Table 1: Employment support activities conducted by 8 model institutes

Tueste 1. Empreyment support wett titles conducted by a model maticates					
Activities	No. of	No. of participants			
Activities	sessions	2012	2013	2014	
Carrier orientation sessions		2,717	1,713	2,420	
Carrier planning workshop	2 session/ year/insti	2,279	1,819	2,326	
Occupational awareness seminar		2,960	2,563	2,029	
Occupational preparation workshop	tute	2,100	2,340	2,685	
Career consultation session		2,104	2,444	3,212	

Table 2: No. of 5S and Kaizen related seminars/workshops organized by 8 model institutes

		No. of 5S and Kaizen related					
	Name of model institutes	seminars/workshops					
		2012	2013	2014			
1	JMTI	4	5	5			
2	ADTEC Batu Pahat	4	5	5			
3	ADTEC Melaka	11	4	5			
4	ADTEC Shah Alam	6	6	7			
5	ADTEC Kulim	7	2	6			
6	ITI Kuantan	5	3	4			
7	ITI Kota Kinabalu	4	4	3			
8	ITI Kota Samarahan	1	3	3			
	Total	42	22	38			

Table 3: Employment status of graduates of 27 vocational training institutes

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	2012	2013	2014
No. of Enrollment	16,456	17,578	20,063
No. of Graduates	6,670	6,406	6,113
a) Number of Graduates Who Are Employed	2,348	2,711	2,621
a) Number of Graduates wito Are Employed	(35.2%)	(42.3%)	(42.9%)
b) No. of graduates who proceed to higher	1,141	1,355	1,391
education	(17.1%)	(21.2%)	(22.8%)
c) No. of graduates who are not employed	711	971	661
c) No. of graduates who are not employed	(10.7%)	(15.2%)	(10.8%)
d) Others	2.470	1.369	1.440

Source: MOHR

Note: "Others" means No. of graduates who have received employment offer but refused to accept.

institutes. It was difficult to verify the achievement of original indicator for overall goal, i.e. "Reduction of the number of foreign workers at the technical" due to unavailability of data. However, according to the employment status of graduates of 27 vocational training institutes, there was a positive change in the number and rate of graduates who are employed from 2012 and 2014. According to the interview with a local company, after the project, they conducted "technical transfer", namely sending their engineer to ADTEC Melaka to

The numbers of company database in the TMS system are 7,988 companies as per December 2015.

⁴ RCC is a regional network of vocational training institutes and total six RCCs were organized in Malaysia, while CCC is a network of representatives of RCC in the national level. RCC and CCC were established by the project. The CCC secretariat is located in Human Resource Policy Division, MOHR.

teach its lecturers how to use CNC (Computer Numerical Control) machine, and receiving staff of ADTEC Melaka for its learning on learn the latest technology. Through these "technical transfer", their relationship with vocational training institutes has been strengthened. The above results imply that the training institutes introduced and practiced the project outcomes could train and educate the workforce to meet the needs of Malaysian industries.

<Other Positive and Negative Impacts>

<Evaluation Results>

The project has some positive impact on human resource development of the companies which received CUDBAS training courses and workshops by the project. According to the interview with MOHR, there was a case that CUDBAS was utilized in some companies to make a training plan for handing over of work duties, decreasing accident rate, etc. No negative impact on natural environment was observed and no land acquisition and resentment of people was occurred by the project.

The project purpose was achieved and it was confirmed certain extent of continuation of the project effect. On the other hand, some positive impact was observed to confirm that overall goal was partially achieved. Since the original indicator for the overall goal was inappropriate, the status of achievement was not available. Therefore, the effectiveness/Impact of the project is fair.

	Achievement of project purpose and overall goal							
Aim	Indicators		Results					
(Project Purpose)	None	Status of achievement: Achieved						
Ministry of Human		(Terminal evaluation/Project completion)						
Resources is able to plan		Output 1: Community and Employment Support Service (CESS) offices at model institutes						
and manage human		are established (→ Achieved).						
resource development in		CESS offices were established at targ	get eight mode	l institute	S.			
accordance with needs		• In addition, other 18 vocational train	ing institutes s	tarted the	CESS act	ivities.		
of industries.								
or massires.		Output2: Collaboration system among n and community is established			g institutes	s, local inc	lustries	
		• 304 CUDBAS manpower resources (ors and 1	10 learner	s) were	
		trained as at October 2011.	20 1044015, 17	o iuciiiui	ors, una r	10 icarrier	3) WEIG	
		 67 company support sessions were ca 	arried out					
		 Standardized company database form 		chad				
		Standardized company database form	iai was establis	siicu.				
		Output3: Employment support system is		model in	stitutes (Achieve	d).	
		Total 12 Career Counselors were train						
		• Employment Support Manual was co						
		Summary of carrier guidance activiti		in 2009-2	011			
		Carried guidance activities	No. of sessions		No. of pa	rticipants		
		Carrier orientation sessions	41				4,798	
		Carrier planning workshop	35				4,016	
		Occupational awareness seminar	51				7,558	
		Occupational preparation workshop	51				7,540	
		Career consultation session	4,061	(No. of	`atudanta .	portfolios	2,206	
		Output4: System for improvement of instructors ability is established (→ Not achieved). • Since the MOHR brought in the qualification framework for instructors in 2010, the Project minimized intervention to this area and provided technical advices.						
		Output5: Management system for keep	meeting with t	he needs (of industri	es is estab	lished at	
		each model institutes (→ Achi	•					
		• The following 5S and Kaizen related	/	kshops w	ere organi	zed in 200	9-2011.	
		5S Activities		2009	2010	2011	Total	
		(1) AWARENESS FOR 5S ACTIVIT	Y		•			
		No. of 5S Seminar/ Workshop/ Cour	se	10	27	30	67	
		conducted with staff		10		50	07	
		No. of staff attended 5S Seminar/ W	orkshop/	548	1,949	1,985	4,482	
		Course 5S Seminar/ Workshop/ Course with	student	3	11	23	37	
		No. of student attended 5S Seminar/		3				
		Course	WOLKSHOD/	511	3,190	5,253	8,954	
		(2) CONDUCT 5S ACTIVITY						
		Big Cleaning Day		4	18	22	44	
		No. of 5S Benchmarking visits		3	30	25	58	
		Total number of innovation/ KAIZE	N projects	2	9	1		
		to improve quality						
		(3) CHANGE THE STUDENT ATITUDE						
		JTP1* 217 182 77 476						
		JTP2		1,135	963	527	2,625	
		Number of accidents during training 5 5 5 15 15 • Courses are reviewed through workshop organized by the Manpower Department						
<u> </u>		- Courses are reviewed through works	nop organized	by the M	anpower 1	Jepartmen	ı	

(Overall goal) Malaysian Industry will have a balanced workforce to meet the needs of a rapidly growing and changing industry.	(Indicator 1) Has the number of foreign workers at the technical level been reduced?	headquarters and endorsed by the Curriculum committee. * JTP: Student Disciplinary Committee Status of achievement: Partially achieved (Ex-post Evaluation) It is difficult to confirm the achievement of this indicator because: (i) definition of "technical level" is unclear and difficult to get the data, and (ii) the project purpose is not necessarily related to reduction of foreign workers at technical level directory and there are many other factors that influence on changes in the number of foreign workers such as economic condition, etc. (Reference)					
			2011	2012	2013		
		Number of foreign workers in Malaysia	1,573,061	1,571,589	2,250,322		
		While, there was a positive change in the number and rate of graduates who are employed from 2012 and 2014 at 27 vocational training institutes. Also a case of "technical transfer" between the vocational training institute and local companies was confirmed at ADTEC					

Source: Terminal evaluation report, project completion report, interview with counterparts.

3 Efficiency

The project period was within the plan (ratio against the plan: 100%), the project cost was higher than the plan (ration against the plan: 123% because of implementation of additional training in Japan (Fine Ceramics Fabrication Technology) and additional experts dispatch (practical guidance for how to utilize CUDBAS to make custom-made curriculum to each companies) etc. Therefore, efficiency of the project is fair.

Melaka

4 Sustainability

<Policy Aspect>

In the 11th Malaysia Plan (2016 to 2020), one of game changers, which are innovative approaches to accelerate Malaysia's development, is "Enabling industry-led Technical and Vocational Education and Training (TVET)". In the plan, it is pointed out that the importance of collaboration between industry and TVET providers for more effective TVET.

<Institutional Aspect>

The CESS unit is established and full time CESS officers are assigned in all 32 vocational training institutes including 8 model institutes. Each institute has at least 8 CUDBAS practitioners. 12 career counsellors trained through training in Japan and local training during the project implementation period have been continuously working for 8 model institutes and the Center for Instructor and Advanced Skill Training (CIAST) as key resource persons. After the project completion, MOHR published "Career Guidance Book" which lecturers of the training institutes can use this guidebook to give guidance to students. The career counselors played a main role for preparation of this guidebook. The Regional CESS Committee (RCC) and the Central CESS Committee (CCC) are scheduled to be organized twice and once a year respectively to discuss and share the knowledge and experience of CESS and CUDBAS among the training institutes under MOHR. <Technical Aspect>

MOHR through CIAST has continued to provide the training to all CESS officers and instructors of all 32 training institutes to maintain the technical capacity of staff as well as the quality of their graduates. As mentioned earlier, each training institute has been improving their vocational training program and system by introducing the knowledges and skills of the project, and has shown positive results in increasing employment opportunities of the graduates.

<Financial Aspect>

Although budget information is not available, MOHR and each training institute have continuously conducted CESS activities, 5S/Kaizen activities and CUDBAS activities. It shows that they can coordinate these activities within their allocated budget.

<Evaluation Results>

No problem has been observed in the policy, institutional, technical and financial aspects. Therefore, sustainability of the project is high.

5 Summary of the Evaluation

This project has achieved the project purpose and mostly achieved the overall goal. CESS offices, the collaboration system among model vocational training institutes, local industries and community, the employment support system, and the concept of 5S and Kaizen were adopted at eight model institutes and the model institutes were able to plan and manage human resource development in accordance with needs of industries. This project outcome has further been disseminated to other vocational training institutes in Malaysia. As a result, the employment status of graduates of 27 vocational training institutes had a positive change in the number and rate of graduates who are employed from 2012 and 2014. The project has some positive impact on human resource development of the companies which received CUDBAS training courses and workshops by the project. However, since no indicator was set for the project purpose and the original indicator for the overall goal was inappropriate, the effectiveness/Impact of the project is fair. The efficiency of the project is fair because the project cost was higher than the plan due to additional input of expert dispatch and training in Japan etc.

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

III. Recommendations & Lessons Learned

Recommendations for Implementing agency:

- (1) Although networking with industry is actively conducted at each institute to grab the needs of industries and reflect them into actual training, the ability of how to revise the curriculum, and how to utilize these information of needs of industries including how to get necessary information by utilization of CUDBAS is different among institutions. In addition, after the project completion, four institutes were newly established. In order to maintain and further improve the capacity of vocational training institutes, MOHR is recommended to make the continuous efforts to strengthen the quality of training with the collaboration of Japanese companies, associations, and experts which have experiences in practicing 5S/Kaizen, CUDBAS, etc.
- (2) It is recommended to introduce certification system for CUDBAS facilitator and CUDBAS Certification can play an important role to

maintain and standardize the quality of CUDBAS activities conducted at all vocational training institutes.

Lessons learned for JICA

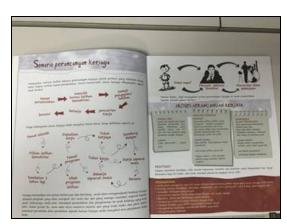
- (1) There were several key factors that promoted the dissemination of the project outcome from the model institutes to other institutes. Firstly, the project set up the regional and national level committees covering all public vocational training institutes nationwide under MORH and utilized this mechanism for dissemination and information exchange of the project outcomes among the member institutes. Secondly, involvement of policy making organization (i.e. Manpower Department of MOHR) was quite important. Because of this, CESS units with allocation of full time CESS officers were established in all institutions including newly operated institutes under instruction of MOHR. The above approach is a good practice for the similar type of the project in the future.
- (2) There were difficulties in evaluating the achievement of the project purpose and the overall goal in this ex-post evaluation due to unavailability and inappropriate indicators. JICA must set the appropriate indicators to assess the effectiveness and impact of the project considering the range of impact which the project can reach.



5S Activities demonstrated in Mechanical Workshop (ADTEC Melaka)



5S Activities demonstrated in Automotive workshop (ADTEC Melaka)



Career Guidance Book published by MOHR (ADTEC Melaka)