I. Project Outline

Background

Since the Malaysian economy were transformed from the production-based to the knowledge-based, human resource development needed to be changed in quantity and quality. Under the national development plans of Malaysia, the most prioritized issues were the industrial development for the global competitive market as well as the human resource development to meet the demand of such industries. While the government of Japan had supported Malaysia through the cooperation for the Center for Instructor and Advanced Skill Training (CIAST) (1982-1990) and the Japan-Malaysia Technical Institute (1998-2004), further cooperation was requested to elaborate adequate labor policies to meet the needs for quality human resource of the industries. JICA dispatched the long-term expert in labor policy to Malaysia and received the government officers of Malaysia in order to identified issues to improve the vocational training system of Malaysia so as to meet the needs of the industries. After the series of the cooperation by JICA, a project to improve vocational training in Malaysia was formulated.

Objectives of the Project

This project is aiming to strengthen the capacity of Ministry of Human Resources (MOHR) to plan and manage human resource development in accordance with needs of industries through training of MOHR officers and instructors of vocational training institutes and introduction of various vocational training program and systems practiced in Japan, thereby contributing to meet the needs of a rapidly growing and changing Malaysian industry.

1. Overall Goal: Malaysian Industry will have a balanced workforce to meet the needs of a rapidly growing and changing industry.
2. Project Purpose: Ministry of Human Resources is able to plan and manage human resource development in accordance with needs of industries.

Activities of the project

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 Semaranah, 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 CUDBAS\textsuperscript{1} (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 Kaizen\textsuperscript{2} activities at each model vocational training institutes.

3. Inputs (to carry out above activities)

   Japanese Side
   \begin{itemize}
   \item 1) Experts: 5 persons
   \item 2) Trainees received: 12 persons
   \end{itemize}

   Malaysia Side
   \begin{itemize}
   \item 1) Counterpart personnel: N.A.
   \item 2) Land and facilities: Office space, training facilities, support equipment
   \item 3) Local cost: salaries to counterpart personnel, training and workshop cost
   \end{itemize}

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 of Human Resources (MOHR)

Cooperation Agency in Japan

KRI International Corporation

II. Result of the Evaluation

<Issues to be considered at ex-post evaluation>

(1) Indicator for the project purpose: 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) Indicator for the overall goal: 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 supplement information for the overall goal.

\textsuperscript{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.

\textsuperscript{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) 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) 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 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

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3 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>

The project has some positive impact on human resource development of the companies which received CUD BAS training courses and workshops by the project. According to the interview with MOHR, there was a case that CUD BAS 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.

<Evaluation Results>

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

<table>
<thead>
<tr>
<th>Aim</th>
<th>Indicators</th>
<th>Results</th>
</tr>
</thead>
</table>
| (Project Purpose) Ministry of Human Resources is able to plan and manage human resource development in accordance with needs of industries. | None | Status of achievement: Achieved  
(Terminal evaluation/Project completion)  
**Output 1**: Community and Employment Support Service (CESS) offices at model institutes are established (Achieved).  
- CESS offices were established at target eight model institutes.  
- In addition, other 18 vocational training institutes started the CESS activities. |
|  |  | **Output 2**: Collaboration system among model vocational training institutes, local industries and community is established (Achieved).  
- 304 CUD BAS manpower resources (20 leaders, 175 facilitators, and 110 learners) were trained as at October 2011.  
- 67 company support sessions were carried out.  
- Standardized company database format was established. |
|  |  | **Output 3**: Employment support system is introduced to model institutes (Achieved).  
- Total 12 Career Counselors were trained.  
- Employment Support Manual was completed in June 2011.  
- Summary of carrier guidance activities carried out in 2009-2011 |
|  |  | **Output 4**: 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. |
|  |  | **Output 5**: Management system for keep meeting with the needs of industries is established at each model institutes (Achieved)  
- The following 5S and Kaizen related seminars/workshops were organized in 2009-2011. |

#### 5S Activities

<table>
<thead>
<tr>
<th>5S Activities</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(1) AWARENESS FOR 5S ACTIVITY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of 5S Seminar/ Workshop/ Course conducted with staff</td>
<td>10</td>
<td>27</td>
<td>30</td>
<td>67</td>
</tr>
<tr>
<td>No. of staff attended 5S Seminar/ Workshop/ Course</td>
<td>548</td>
<td>1,949</td>
<td>1,985</td>
<td>4,482</td>
</tr>
<tr>
<td>5S Seminar/ Workshop/ Course with student</td>
<td>3</td>
<td>11</td>
<td>23</td>
<td>37</td>
</tr>
<tr>
<td>No. of student attended 5S Seminar/ Workshop/ Course</td>
<td>511</td>
<td>3,190</td>
<td>5,253</td>
<td>8,954</td>
</tr>
<tr>
<td><strong>(2) CONDUCT 5S ACTIVITY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big Cleaning Day</td>
<td>4</td>
<td>18</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td>No. of 5S Benchmarking visits</td>
<td>3</td>
<td>30</td>
<td>25</td>
<td>58</td>
</tr>
<tr>
<td>Total number of innovation/KAIZEN projects to improve quality</td>
<td>2</td>
<td>9</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td><strong>(3) CHANGE THE STUDENT ATTITUDE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JTP1*</td>
<td>217</td>
<td>182</td>
<td>77</td>
<td>476</td>
</tr>
<tr>
<td>JTP2</td>
<td>1,135</td>
<td>963</td>
<td>527</td>
<td>2,625</td>
</tr>
<tr>
<td>Number of accidents during training</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Courses are reviewed through workshop organized by the Manpower Department</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
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.