

Country Name	<b>Project for strengthening TOT functions at Hanoi University of Industry (HaUI)</b>
Socialist Republic of Viet Nam	

**I. Project Outline**

Background	<p>The development of high-quality human resources was an urgent task for the Government of Viet Nam (GOV) to realize its vision to basically become an industrialized country by 2020. In line with the GOV's vision, the Government of Japan had been assisting Hanoi University of Industry (HaUI) through technical cooperation projects known as: "The Project for Strengthening Training Capability for Technical Workers Course in Hanoi Industrial College<sup>1</sup> (2000-2005)" and "Project for Human Resource Development of Technicians at Hanoi University of Industry (2010-2013)". As a result, graduates from HaUI were highly rated in the industry, and the GOV recognized HaUI as a model institution of providing high-quality human resources for Japanese enterprises in Viet Nam. To further respond to the needs of the industry in Viet Nam, it was expected to transfer the accumulated know-how of HaUI to other vocational training institutions (VTIs). The outputs of this project are expected to be utilized for JICA's future projects in industrial human resource development.</p>												
Objectives of the Project	<p>Through i) development of effective training schemes (i.e. overall plans on how to conduct training courses) for upgrading trainers' capacity of VTIs, ii) development and conduct of new TOT (Training of Trainers) courses by HaUI for other VTIs, and iii) TOT by HaUI for Technique Technology College (TTC) and Ho Chi Minh Vocational College of Technology (HVCT); the project aimed for HaUI to properly manage technical transfer to other VTIs in the field of machining, electronics and electricity, etc., thereby contributing for VTIs to introduce and adopt "HaUI Technical Model"*.</p> <p>* "HaUI Technical Model" means the model which has been developed through JICA's technical cooperation projects with HaUI since 2001. The model is composed of: (a) development of curriculum reflecting labour market needs by using Curriculum Development Based on Ability Structure (CUDBAS)<sup>2</sup> and PDCA (Plan, Do, Check, Action) cycle, (b) technical improvement in targeted occupations, (c) soft skill such as 5S and Safety First, (d) enterprise partnership including employment support, and (e) skill test.</p> <ol style="list-style-type: none"> <li>Overall Goal: "HaUI Technical Model" is introduced and adopted by Vocational Training Institutions (VTIs) in and around Hanoi and Ho Chi Minh City.</li> <li>Project Purpose: Hanoi University of Industry (HaUI) can properly manage technical transfer to other VTIs in occupations such as machining, electronics and electricity based on "HaUI Technical Model".</li> </ol>												
Activities of the Project	<ol style="list-style-type: none"> <li>Project Site: In and around Hanoi/ Ho Chi Minh City* <ul style="list-style-type: none"> <li>* The project originally targeted only Hanoi area through technical transfer from HaUI to TTC, but HVCT was added in June 2015 through approval of the Joint Coordination Committee, and thus the project included the area of Ho Chi Minh City.</li> </ul> </li> <li>Main Activities: Based on "HaUI Technical Model", following activities were implemented in the field of machining, electronics, and electricity, etc.: <ol style="list-style-type: none"> <li>To set up a working group, and to review/develop TOT schemes for VTIs</li> <li>To develop curriculums and materials for new TOT courses, and conduct the courses by HaUI for VTIs</li> <li>To train trainers of TTC and HVCT by HaUI, and to conduct TOT by TTC and HVCT for other VTIs</li> </ol> </li> <li>Inputs (to carry out above activities) <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Japanese Side</td> <td style="width: 50%;">Vietnamese Side</td> </tr> <tr> <td>1) Experts: 12 persons</td> <td>1) Staff Allocated: 46 persons</td> </tr> <tr> <td>2) Trainees Received: (Japan: 31 persons; Thailand: 1 person)</td> <td>2) Buildings and Equipment: project offices, etc. and training equipment at HaUI, TTC and HVCT</td> </tr> <tr> <td>3) Equipment: Wire-cut Electrical Discharge Machines and other technical equipment</td> <td>3) Local Cost</td> </tr> <tr> <td>4) Local Cost</td> <td></td> </tr> </table> </li> </ol>			Japanese Side	Vietnamese Side	1) Experts: 12 persons	1) Staff Allocated: 46 persons	2) Trainees Received: (Japan: 31 persons; Thailand: 1 person)	2) Buildings and Equipment: project offices, etc. and training equipment at HaUI, TTC and HVCT	3) Equipment: Wire-cut Electrical Discharge Machines and other technical equipment	3) Local Cost	4) Local Cost	
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Project Period	June 2013 – March 2017 (Extension: June 2016 – March 2017)	Project Cost	(ex-ante) 193 million yen, (actual) 246 million yen										
Implementing Agency	Ministry of Industry and Trade (MOIT)*; Hanoi University of Industry (HaUI) * In 2016, the Ministry of Labour, Invalids and Social Affairs (MOLISA) was assigned as the sole state management agency for vocational education and training.												
Cooperation Agency in Japan	Ministry of Health, Labor and Welfare; Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers												

**II. Result of the Evaluation**

## &lt;Constraints on Evaluation&gt;

- Due to Coronavirus Disease (COVID)-19 pandemic, the evaluation judgment was made by analyzing information acquired, through sending/collecting questionnaires and telephone interviews with officials concerned. Neither face-to-face interviews nor site visits were conducted.

## 1 Relevance

## &lt;Consistency with the Development Policy of Viet Nam at the Time of Ex-Ante Evaluation&gt;

<sup>1</sup> Hanoi Industrial College became Hanoi University of Industry (HaUI) in 2005.

<sup>2</sup> CUDBAS means "Curriculum Development Based on Ability Structure".

The project was consistent with “Vocational Training Development Strategy (2011-2020)”, which prioritized improving capacity of vocational trainers.

<Consistency with the Development Needs of Viet Nam at the Time of Ex-Ante Evaluation>

The project was consistent with development needs of Viet Nam for strengthening vocational education and training, especially through transferring the accumulated know-how of HaUI to other VTIs.

<Consistency with Japan’s ODA Policy at the Time of Ex-Ante Evaluation>

The project was consistent with “Country Assistance Program for Viet Nam (2012)”, supporting to “develop the industry and human resources” under a priority area, i.e. “Promotion of Economic Growth and Strengthening of International Competitiveness”.

<Evaluation Result>

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

2 Effectiveness/Impact

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

The project achieved the Project Purpose at the time of project completion. Ten (10) TOT courses’ curriculums, textbooks and manuals developed by the project were approved by the General Directorate of Vocational Training (GDVT) under MOLISA as “National TOT Program” in October 2016. During the project period, 48 courses were conducted with 532 participants from 40 VTIs (Indicator 1). The participants’ average acquisition score on knowledge/ skills increased from 2.2 to 3.6 (in a 5-level scale) according to “before/ after-the-course questionnaires” (Indicator 2), and their satisfaction rate on the TOT courses was 93.5% on average (Indicator 3).

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

The project effects have been continued till the time of ex-post evaluation. TOT courses have been conducted by HaUI based on “HaUI Technical Model”; not only for machining, electronics, and electricity (developed under the project) but also for automobile and IT, etc., for both VTIs and enterprises. HaUI holds regular meetings with TTC and HVCT on TOT courses, and dispatches experts and lends equipment to TTC/HVCT when necessary. Moreover, HaUI plays a coordinating role with enterprises, being updated with their needs for human resource development. HaUI has been working towards comprehensive cooperation with enterprises through activities such as: job days (fairs), recruitment seminars, trainees’ site visit, OJT and skill testing.

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

The Overall Goal has been achieved. The cumulative number of participants of TOT courses by HaUI, TTC and HVCT based on “HaUI Technical Model” reached 3,319 at the end of 2019, exceeding the target of 1,000 (Indicator 1). Currently, there are at least 4 VTIs, including HaUI, which provide training based on “HaUI Technical Model”, and thus the target of “more than 3 VTIs” was achieved (Indicator 2). HaUI, TTC and HVCT conducted TOT for other VTIs, some of which have applied “HaUI Technical Model” however have not fully reported back to HaUI on how they have applied the model.

Moreover, HaUI, TTC and HVCT shared the opinion that it had recently become more difficult to recruit participants for TOT courses, possibly because these VTIs had to increase its tuition after the project completion to cover necessary costs; and other VTIs interested in TOT had already dispatched their trainers. Nonetheless, HaUI, TTC and HVCT keep conducting training (not necessarily TOT) based on “HaUI Technical Model”, and play pivotal roles with enterprises in the nearby areas.

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

“HaUI Technical Model” is highly evaluated by MOIT and Ho Chi Minh City Department of Labour, Invalids and Social Affairs. They recommended other VTIs to adopt this model. It is notable that the project originally targeted only Hanoi area through technical transfer from HaUI to TTC, but HVCT was added in June 2015 as a key VTI in the southern area, resulting in expanding project effects. Currently, HVCT plays a coordinating role with more than 70 enterprises, adopting “enterprise partnership including employment support” under “HaUI Technical Model”. On the other hand, no negative impacts have been observed.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is high.

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results																							
(Project Purpose) Hanoi University of Industry (HaUI) can properly manage technical transfer to other Vocational Training Institutions (VTIs) in occupations such as machining, electronics and electricity based on “HaUI Technical Model”.	1. Number of courses, certified participants, and participating VTIs in training courses for upgrading/updating trainers’ capacity conducted by HaUI reaches 25, 250 and 15 respectively.	Status of the Achievement: achieved (continued) (Project Completion)/ (Ex-post Evaluation)  TOT Courses Conducted by HaUI based on “HaUI Technical Model” <table border="1"> <thead> <tr> <th rowspan="2"></th> <th rowspan="2">Under the Project (2014 Jul.–2016 Dec.)</th> <th colspan="3">After the Project</th> </tr> <tr> <th>2017</th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>No. of TOT Courses</td> <td>48</td> <td>78 (55)</td> <td>38 (35)</td> <td>15 (13)</td> </tr> <tr> <td>No. of Certified Participants</td> <td>532</td> <td>1,594 (1,283)</td> <td>535 (505)</td> <td>294 (274)</td> </tr> <tr> <td>No. of Participating VTIs (not including enterprises)</td> <td>40</td> <td>20 (2)</td> <td>17 (5)</td> <td>4 (0)</td> </tr> </tbody> </table> (Note) The figures in parentheses are TOT courses (such as automobile and IT) other than those developed under the project (i.e. machining, electronics and electricity).		Under the Project (2014 Jul.–2016 Dec.)	After the Project			2017	2018	2019	No. of TOT Courses	48	78 (55)	38 (35)	15 (13)	No. of Certified Participants	532	1,594 (1,283)	535 (505)	294 (274)	No. of Participating VTIs (not including enterprises)	40	20 (2)	17 (5)	4 (0)
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2. Average score in knowledge and skills, about components of “HaUI Technical Model”, of trainers who participated in training for upgrading/updating trainers’ capacity improves from 2.0 to 3.0*. * in a 5-level scale	Status of the Achievement: achieved (continued) (Project Completion) Average score improved from 2.2 to 3.6. (Ex-post Evaluation) Average “after-the-course” score maintains higher than 3.0. One example (Electronics Course in May-July 2018) shared by HaUI shows the average knowledge score as 3.5, and the average skill score as 3.7.																								

	3. More than 80% of trainers who participated in training courses for upgrading/updating trainers' capacity are satisfied with the training.	Status of the Achievement: achieved (continued) (Project Completion) Average satisfaction rate was 93.5% (Ex-post Evaluation) Average satisfaction rate maintains more than 80%. The same example shared by HaUI shows 100% as the satisfaction rate.																																	
(Overall Goal) "HaUI Technical Model" is introduced and adopted by VTIs in and around Hanoi and Ho Chi Minh City.	1. More than 1,000 trainers participated in training courses for upgrading/updating trainers' capacity.	(Ex-post Evaluation) achieved No. of Trainers Participated in TOT based on "HaUI Technical Model" <table border="1"> <thead> <tr> <th rowspan="2"></th> <th rowspan="2">Under the Project (2014 Jul. – 2016 Dec.)</th> <th colspan="3">After the Project</th> <th rowspan="2">Cumulative Total</th> </tr> <tr> <th>2017</th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>HaUI</td> <td>532</td> <td>1,594</td> <td>535</td> <td>294</td> <td>2,955</td> </tr> <tr> <td>TTC</td> <td>160</td> <td>10</td> <td>0</td> <td>0</td> <td>170</td> </tr> <tr> <td>HVCT</td> <td>103</td> <td>91</td> <td>0</td> <td>0</td> <td>194</td> </tr> <tr> <td>Total</td> <td>795</td> <td>1,695</td> <td>535</td> <td>294</td> <td><b>3,319</b></td> </tr> </tbody> </table>		Under the Project (2014 Jul. – 2016 Dec.)	After the Project			Cumulative Total	2017	2018	2019	HaUI	532	1,594	535	294	2,955	TTC	160	10	0	0	170	HVCT	103	91	0	0	194	Total	795	1,695	535	294	<b>3,319</b>
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2. More than 3 VTIs provide training courses based on "HaUI Technical Model".	(Ex-post Evaluation) Achieved 4 VTIs currently provide training courses based on "HaUI Technical Model", namely HaUI, TTC, HVCT and the Hanoi College of Industrial Economics.																																		

Source : JICA documents; Questionnaires and interviews with HaUI, TTC and HVCT.

### 3 Efficiency

Both the project cost and period exceeded the plan (ratio against the plan: 127% and 128% respectively). One of the reasons for extending the project period was adding HVCT as one of the two VTIs for technical transfer of HaUI. Therefore, the efficiency of the project is fair.

### 4 Sustainability

#### <Policy Aspect>

"Vocational Training Development Strategy (2011-2020)" and other related national policies, including "Master Plan on the Development of Vietnam's Human Resources (2011-2020)", are still effective till 2020; while new policies are to be issued in 2021. Under the current policies, the ratio of workers who complete vocational training is aimed to reach 55% of the total workforce in 2020.

#### <Institutional/Organizational Aspect>

All of HaUI, TTC and HVCT sustain their institutions with sufficient number of trainers and administrative staff. In HaUI, "Center for Enterprise Partnership" was established as a specialized division for TOT courses. TTC has the Division of Relations with Enterprises, and maintains linkage with enterprises in organizing job fairs, OJT, and skill testing for enterprises' workers. HVCT established "Quality Assurance Division" for enhancing the monitoring and evaluation of training activities, and thus training quality is ensured. HVCT also has been coordinating with more than 70 enterprises for annual job fairs, site visits to factories and sharing training materials including 5S.

#### <Technical Aspect>

All of HaUI, TTC and HVCT have maintained the necessary skills for TOT based on "HaUI Technical Model" with PCDA approach. The training materials developed under the project are still being utilized.

#### <Financial Aspect>

Each of HaUI, TTC and HVCT has its own revenue including fees collected from participants and enterprises. In the case of HVCT, it conducts training through cost sharing with enterprises. HVCT also procured equipment under MOLISA's budget, namely "National Target Program on Vocational Education and Training, Employment and Occupational Safety<sup>3</sup>". As mentioned above, it has recently become difficult for these 3 VTIs to recruit TOT trainees from other VTIs, which can be financially due to the increase in tuition after the project completion, as well as inadequate budget of other VTIs to send their trainers to TOT courses. Subsidies come from MOLISA to VTIs to join TOT courses, but only to a limited extent.

#### <Evaluation Result>

In light of the above, some problems have been observed in terms of the financial aspects of the implementing agency. Therefore, the sustainability of the project effects is fair.

### 5 Summary of the Evaluation

The project achieved the Project Purpose (i.e. Hanoi University of Industry (HaUI) can properly manage technical transfer to other Vocational Training Institutions (VTIs) in occupations such as machining, electronics and electricity based on "HaUI Technical Model"). The project effects have continued, and the Overall Goal (i.e. "HaUI Technical Model" is introduced and adopted by VTIs in and around Hanoi and Ho Chi Minh City) has been achieved. Regarding the Sustainability, some problems have been observed in terms of financial aspects, but no problem has been observed in terms of the policy, institutional/organizational, and technical aspects. As for the Efficiency, both the project cost and period exceeded the plan.

Considering all of the above points, this project is evaluated to be satisfactory.

## III. Recommendations & Lessons Learned

#### Recommendations for Implementing Agency:

- In the coming years, it is recommended that the targeted VTIs under the project, i.e. HaUI, TTC and HVCT, seek for possible ways to advertise TOT courses to more VTIs. Moreover, HaUI, TTC and HVCT are suggested to conduct a follow-up survey with other VTIs, whose trainers participated in the TOT courses, to learn: 1) whether the VTIs apply "HaUI Technical Model", and 2) what improvements are made to their training courses.

#### Lessons Learned for JICA:

- Under the project, HVCT was added to the project scope to expand the TOT (developed under the project) not only to originally targeted Hanoi area but also to the southern area of the country. This helped to disseminate the project effects to a wider area than

<sup>3</sup> "Target programs", including this, were approved by Resolution No.73/NQ-CP (dated August 26<sup>th</sup> 2016) for investment for the period of 2016-2020.

planned. Now at the time of ex-post evaluation, HVCT has been continuing with training courses and sharing “HaUI Technical Model” with other VTIs and enterprises in and around Ho Chi Minh City. For example, HVCT has been coordinating with more than 70 enterprises for annual job fairs, site visits to factories and sharing training materials including 5S. Thus, it was a flexible and wise decision to bring in HVCT to the project.

- Recently, HaUI, TTC and HVCT have become more difficult to recruit participants for TOT courses, possibly because these VTIs had to increase its tuition after the project completion to cover necessary costs; and other VTIs interested in TOT already dispatched their trainers. At the time of planning training courses under a similar project, it is important to deliberately consider the course contents and tuition to ensure the sustainable needs of the training courses.



A TOT course by HaUI



A TOT course by HVCT