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Ex-Post Evaluation Report for the 2nd Phase Upgrading Project of the Korea-Vietnam Industrial Technical School

KOICA

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한국국제협력단

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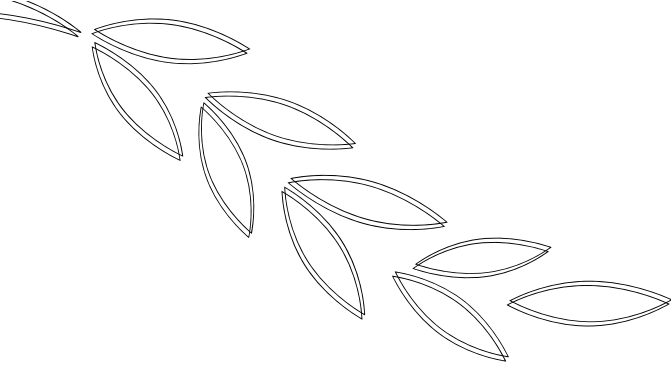
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Introduction



Recently, the importance of the aid effectiveness is emphasized as the indicator of successful official development assistance (ODA) in the international community. The UN new millennium summit meeting held in September 2000 established 8 MDGs (Millennium Development Goals)¹⁾ to eliminate famine and absolute poverty leading toward joint development prosperity of humanity by 2015. Thereafter, a total of three HLF: High Level Forum on Aid Effectiveness was held. The first High Level Forum (HLF-1) was held in February 2003 in Rome, Italy, and adopted the Rome Declaration which emphasized aid harmonization. The second High Level Forum (HLF-2) was held in Paris, France on February 2005, adopting the Paris Declaration which had the goal of raising the aid effectiveness comprehensively based on the existing international society's criteria. The third aid effectiveness of the High Level Forum (HLF-3) was held in Accra, Ghana in September 2008, emphasizing the agreement and execution between the donor countries and the recipient countries by announcing AAA (Accra Agenda for Action). The fourth High Level Forum (HLF-4) was held in Busan, Korea in September 2011.

Meanwhile, Korea has simultaneously been adhering to the position of recipient and donor nations in the official development assistance, but as the 24th country to join the development assistance committee (DAC) of OECD in 2010, it joined the ranks of the donor nations comprehensively. As one of the new nations which achieved its independence after WWII and a recipient of

1) Millennium Development Goals: ①Eradicate extreme poverty and hunger, ②Achieve universal education, ③Promote gender equality and empower women, ④Reduce child mortality, ⑤Improve maternal health, ⑥ Combat HIV/AIDS, malaria and other diseases ⑦Ensure environmental sustainability, ⑧Develop a global partnership for development.

massive aid amid the remnant of war and colonial exploitation, it is the first exemplar to convert from the least developed country to donor country. As a consequence, Korea owes similar responsibilities in the international community for official development assistance. It is necessary for Korea to establish an organization that fits its international position and to expand the aid fund in accordance with its economic scale, and from a practical point of view, it is necessary to utilize ODA as a means of humanitarian contribution, pioneering of future markets, and security of resource. The Korean government established 'Basic law for International Development Cooperation' in Jan. 25, 2010 in order to participate in the international trend of ODA. This law stipulates the basic criteria of international cooperation for basic spirit and goal by having the Ministry of Trade and Foreign Affairs be responsible for grant-type aid cooperation and the Ministry of Strategy and Finance be responsible for loan assistance respectively. In addition, as the most senior body for international cooperation of the Republic of Korea, a newly formed international development cooperation committee with the prime minister as the chairman was created.

But as pointed out in the report 'Korea DAC Special Review' published by OECD DAC for Republic of Korea's public-sector development assistance project, the size of the support is still low as compared with the GNI, and still does not accommodate the international standard due to the high loan assistance ratio and the low grant-type aid ratio. Especially, in the operation of the project, due to the two-sided nature of the execution organization, issues of inefficiency and insufficient structural monitoring and feedback system are pointed out. As a result, the official development assistance of Republic of Korea needs to be inspected and examined not only from the perspective of quantity but for project appropriateness, efficiency of execution, and efficiency of result. It is because in the international society, the official development assistance is not only for raising the status of the donor nation or for only emphasizing the benefits to the aid recipients but they should accommodate the most basic activity of unified purpose of prosperity of all mankind.

The Korea-Vietnam Industrial Technical School support project is a representative project of Korea executed in vocational training field. Although the funding was small, the result was exceptionally extraordinary. The researchers suggest how effective the combination of the passion and will of the project participants, continuous communication and cooperation through friendship with the related personnel of the aid recipient, and the interest and continuous monitoring of the representative office of KOICA are in spite of the several limits Korea's ODA has as stated above. Furthermore, a success element analysis of the case of the Korea-Vietnam Industrial Technical School established at Vinh city, Nghệ An province is performed to develop the case as a representative Korean assistance model in the vocational training field.



Planning of Evaluation



2

Planning of Evaluation

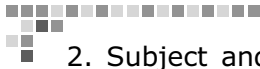


1. Purpose of Evaluation

The 2nd Phase Upgrading Project of the Korea-Vietnam Industrial Technical School is well known as a model case, and an unusual case of which KOICA supported the same organization twice. Internally, the project scored 93 out of 100 from the completion evaluation in November 2009, thus evaluated as a highly effective project. However this evaluation had some weaknesses such as subjectivity, fragmentation, and immeasurability.

Therefore, the current review aims to be more objectively, quantitatively as well as qualitatively, and comprehensively evaluate the 2nd Phase Upgrading Project. Especially the impact and ripple effects of the project are the items which can be perceived in time, the mid- or long-term. To achieve this, not only the achievement of project goal itself but also the agreement to the aid recipient's government policy, contribution to Korea's ODA policy and MDGs were assessed systemically in a longer term perspective. By interviewing various parties of concern ranging from Vietnamese government, people's committee of provincial government, KOICA personnel, School staff, students, alumni, employers, to local inhabitants, was assessed the assistance from various points of view from the aid recipient.

In conclusion, this report aims at generating the strategies and lessons which can be applied in later, similar projects through comprehensive and measurable evaluation of the 2nd Phase Upgrading Project of Korea-Vietnam Industrial Technical School, and policies which can improve the effectiveness of ODA.



2. Subject and Range of the Evaluation

The subject of this evaluation is the 2nd Phase Upgrading Project of Korea-Vietnam Industrial Technical School. This project aims at supporting the expansion of Korea-Vietnam Industrial Technical School. The details of the project were divided in three parts of expansion of laboratory facilities through new construction of buildings for practice, equipment expansion through provision of equipments for separate departments, dispatch of experts and conduct invitational training program to improve the School management capacity and departmental teachers' efficiency.

(1) Expanding buildings and facilities

The laboratory facility of the 2nd Phase Upgrading Project of the Korea-Vietnam Industrial Technical School was square measure of 3,400m²(1 building/2 stories), of which the aid recipient offered the site, took charge of organization of the site and leading-in of the infrastructure whereas the donor country took charge of construction, building, and supervision.

(2) Expanding equipment

The equipments provided through the 2nd Phase Upgrading Project of Korea-Vietnam Industrial Technical School were in total 79 types 317 pieces, and the manager of PMC consulted with the recipient organization and decided the final support details within the range of budget. The purchase of equipment was through an open auction system, and was delivered two times.

(3) Improving the management and teaching capabilities

In the 2nd Phase Upgrading Project of Korea-Vietnam Industrial Technical School project, the improvement of School operation and the efficiency of curricular teachers were performed through dispatch of experts who stayed at Vietnam for a certain period to transfer the know-how of School and departmental operation, and training programs inviting the teachers of Korea-Vietnam Industrial Technical School to Korea. The experts dispatched consisted of one project coordinator and three curricular experts, and they visited the site in accordance of their role at needed time.

(4) Actual processes in implementing the project

<Table 2-1> Summary of the 2nd Upgrading Project of the Korea-Vietnam Industrial Technical School

Name of Country	Vietnam	Area	Vocational Training
Project Title	- The 2nd Upgrading Project of the Korea-Vietnam Industrial Technical School		
Project Period/Size	2007~2008(2 Years / US \$2.3 Million)		
Project Subject Region	Nghệ An Province / Vinh City - The Korea-Vietnam Vocational Technical College		
Project Purpose	By supporting the infrastructure of the vocational education training, employment creation and economic development contribution through fostering skilled manpower.		
Beneficiary Group	Nearby region teenager, unemployed and technical manpower.		
Project Content	Korean	Facility building (U\$930,000) : Practice complex Construction Equipment Support (U\$830,000) : 6 curriculum practice and education equipment support Trainees invitation (U\$230,000) : Teacher by Curriculum(10 persons, 3 months), high-ranking official (5 persons, 1 week) Dispatch of experts (U\$210,000) : 2 curriculum and School operation consultant specialist (3 persons, 3 months) Others (U\$40,000) : Pre-survey, execution consultation and preliminary expense	
	Vietnam	Building site provision and infrastructure establishment support Free custom clearance for supported equipments, transportation expense for relevant country Various administrative convenience and manpower provision for project	

Other Effect	Korea	Raising of image for Korea and increasing friendly cooperative relationship for both countries through new technology transfer.
	Vietnam	Economic development through technical improvement and fostering skilled manpower
Executing Organization	Korea	Korea International Cooperative Agency(KOICA)
	Vietnam	The People's Committee of Nghê An Province

Source: Execution Consultation Result Report (July 2007)



■ 3. Designing the Evaluation Project

(1) Principles of Evaluation

According to the Principles for Evaluation of Development Assistance which OECD DAC recommends, the assessment of ODA project follows the principles of partnership, impartiality, independence, credibility, and usefulness.²⁾

(2) Evaluation Criteria

For project evaluation, the OECD DAC proposes the following six principles: relevance, efficiency, effectiveness, impact, sustainability and cross-cutting issues. The principles have the following implications:

Appropriateness can be measured through the comparison of the direction of the recipient nation and the goal of a project; Efficiency through the comparison of the inputs and outputs of a project; Effectiveness by comparing the strategy and goals of a project to the result and effects; Impacts with the ripple effect of a project; Sustainability through the comparison of development potential of the recipient nation and the result and ripple effect of a project; Cross-cutting issues by activity stage analysis.

²⁾ DAC Principle for Evaluation of Development Assistance (Paris, 1991), OECD DAC

(3) Evaluation Matrix

In order to create the evaluation matrix for the Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project, evaluation questions, indicators, material source and analyzing method were decided and categorized by evaluation criteria as follows:

<Table 2-2> Korea · Vietnam Industrial Technical School 2nd
Phase Upgrading Project Review Matrix

Evaluation criteria	evaluation Question	indicator	Material Source	Analyzing Method
Appropriateness	Does the project goal comply with the guidelines of OECD DAC?	Project goal and MDG matching drawing	Project report, questionnaire, interview	Quantitative analysis, Statistic analysis
	Is the project appropriate for the School development stage?	Project content and School development planning matching drawing	Development planning, project report, questionnaire, interview	Quantitative analysis, Statistic analysis
	Does the project reflect the recipient request?	Project purpose and beneficiary requesting matching drawing.	Project report, questionnaire, interview	Quantitative analysis Statistic analysis
	Does it match with the donor support strategy?	Project purpose and donor support strategy matching drawing	Project report, literature material, interview	Quantitative analysis
	Has it been executed appropriately by project stage?	Project execution procedure compliance status	Project report, questionnaire, interview	Quantitative analysis Statistic analysis
Efficient	Was the project expense used efficiently?	Invested expense and calculated product comparison	Project planning & report, questionnaire, interview	Quantitative analysis Statistic analysis
	Was the project period efficient?	Planning period and execution period comparison	Project planning & report, questionnaire, interview	Quantitative analysis Statistic analysis
	Was the project execution process efficient?	Effectiveness recognition	Questionnaire, interview	Statistic analysis
Effectiveness	Did they achieve the project result (expected goal)?	Planning and performance matching drawing	Project & report, questionnaire, interview	Quantitative analysis Statistic analysis

<Table 2-2> continued

Evaluation criteria	evaluation Question	indicator	Material Source	Analyzing Method
Effectiveness	Did they executive the project effectively?	Effectiveness recognition	Project report, questionnaire, interview	Quantitative analysis Statistic analysis
	Did they manage the risk of the project well?	Danger management recognition	Project report, questionnaire, interview	Quantitative analysis Statistic analysis
	Was the KOICA support effective?	Effective recognition	Questionnaire, interview	Statistic analysis
	Did the effect for project by subject occur?	Employment rate, satisfaction, effectiveness recognition	Statistical material, questionnaire, interview	Statistic analysis
Impact	What kind of Impact did the project have on the students?	Change index (opportunity increase, performance improvement, preference)	Questionnaire, interview	Quantitative analysis, Statistical analysis
	What kind of change was seen on the school by the project?	Change index (image improvement, increase in application and pride)	Project report, statistical material interview	Quantitative analysis, Statistical analysis
	What kind of change was seen on the regional society?	Change index(poverty decrease, welfare standard improvement, regional economy contribution)	Literature material, statistical material, interview	Quantitative analysis, Statistical analysis
	What kind of change was observed to the recipient and donor nations?	Change index (manpower supply, similar project execution, image improvement)	Literature material, statistical material, interview	Quantitative analysis, Statistical analysis
Sustainability	Was the result of the project produced continuously?	The degree of recognition to Sustainability	Questionnaire, interview	Quantitative analysis, Statistical analysis
	Did the employment of graduates increase continuously?	Employment rate	Statistical material, questionnaire, interview	Quantitative analysis, Statistical analysis
	Did the support from the donor nation and the recipient occur continuously?	Support policy status	Literature material, questionnaire, interview	Quantitative analysis, Statistical analysis
	Was the maintenance of the School equipment and facility carried out well?	Management status, maintenance expense	Literature material, questionnaire, interview	Quantitative analysis, Statistical analysis

<Table 2-2> continued

Evaluation criteria	evaluation Question	indicator	Material Source	Analyzing Method
Sustainability	Were there any learning ability development programs for the students?	Education program status	Literature material, questionnaire, interview	Quantitative analysis, Statistical analysis
	Were there any teaching ability improvement programs for the teachers?	Education program status	Literature material, questionnaire, interview	Quantitative analysis, Statistical analysis
	Did the School strengthen the industrial academic collaboration?	Industrial academic collaboration level	Literature material, questionnaire, interview	Quantitative analysis, Statistical analysis
Cross-cutting issue	Were there any gender inequality factors included in the project?	Female ration, sex discrimination recognition	Literature material, questionnaire, interview	Quantitative analysis, Statistical analysis
	Was there any consideration for the minority and the disadvantaged?	Minority ratio, recognition for the handicapped?	Literature material, questionnaire, interview	Quantitative analysis, Statistical analysis
	Was there any consideration for the environment in the project?	Environment issue recognition	Literature material, questionnaire, interview	Quantitative analysis, Statistical analysis



■ 4. Evaluation Method

The assessment of the 2nd Phase Upgrading Project of Korea-Vietnam Industrial Technical School consisted of literature survey, domestic interview, field study and foreign interview, and questionnaire survey.

(1) Literature Survey

The literature survey was performed in order to find out the actual relationship in the project and to improve the expertise in evaluation. Judgment on the actual

relationship was done through investigation of several reports of the project, and the expertise in evaluation was strengthened through materials related to vocational education training, Vietnamese government policies, and the evaluation of ODA project.

<Table 2-3> Major Literature Material List and Review Contents

Category	Major Literature Material	Review Contents
Project-related Material	Feasibility study result report Implementation survey result report Implementation survey result report by sector - Vocational sector - Architectural sector - Electrical and electronic sector End-of-project evaluation report	Understanding of project execution background Understanding of project progression process Concept recognition of project result and goal Information obtaining of interview and site survey Accurate understanding of other review subject
Vocation and Vietnamese Material	Strategy development of vocational education overseas assistance / Korea Research Institute for Vocational Education & Training (2007) Evaluation report of KOICA' s Country Assistance Program for Vietnam / KOICA (2009) Strategy for advancement of education training for international development cooperation / Korea Research Institute for Vocational Education & Training (2009) Legal and national report for Vietnam vocational education training	Understanding of support status for Vietnam Pre-information obtainment for Vietnam site survey Understanding of Vietnam vocational education training system Understanding of International cooperation for vocational education training sector
ODA Project review-related material	DAC Evaluation Quality Standards / OECD DAC(2004) Evaluation Handbook For ODA Loan Projects / JBIC(2006) Development Cooperation of the Republic Of Korea / DAC Special Review The Vietnam Province Competitiveness Index 2010 / USAID(2011) USAID EVALUATION POLICY / USAID(2011)	Understanding of the necessity of ODA project review Review status recognition of Korea's ODA Understanding of ODA project review standard for OECD DAC. Analysis of other nation's ODA project review method.

(2) Domestic interview

The domestic interview was done in purpose of assisting in understanding the project progression process, executed based on pre-survey concept of the field study and subjected to the concerned who directly participated in the project. The interview question contents were about the executed program of the project, role and activity of the project, opinions on the project result from the concerned, advance information needed for the field study.

(3) Field Research

The evaluation team visited the Korea-Vietnam Industrial Technical School site and confirmed the project result by seeing the facilities and listening to the explanation on the utilization situation. Also, the foreign interview was executed in parallel with the field study, and the subject was the Korea-Vietnam Industrial Technical School personnel (principal, teachers and staff, attending students, graduates), Vietnamese civil servant (Ngle An province people's committee), similar schools (Korea-Vietnam technical School, Vietnam-German technical School, the first technical School), regional society (high School, high school students' parents, regional residents, firms employing Korea-Vietnam Industrial Technical School graduates)

(4) Questionnaire survey

The questionnaire survey was conducted to find out the opinions of direct and indirect stakeholders on the evaluation questions. The questionnaire subject was selected according to the evaluation questions and the maximum respondents were gathered to enable statistical analysis. But, the materials were insufficient for graduates and firms employing the graduates and the number of civil servants related to the project was small. Due to the fact that the period for the field study overlapped with the school vacation, it was difficult to conduct the questionnaire survey to the attending students.

5. Members and Roles of the Evaluation Team

The evaluation team was consisted mainly of the researchers of Kookmin Institute for Strategic Governance, a research institute of public policies, along with an on-site vocational education expert. The allotment of roles is as follows:

<Table 2-5> Team Formation

No	Name	Designation	Role
1	HONG Sung Gul	Prof. of School of Public Administration and Public Policy, Kookmin University (Director of Kookmin Institute for Strategic Governance)	- Comprehensive Project Leader /PM
2	LEE Sang-jun	Prof. of School of International Studies, Kookmin University	- Formation and Analysis of Question for the Questionnaire - Site Survey and Local and Overseas Interview Execution
3	HAN Nan-sung	Research Fellow, Kookmin Institute for Strategic Governance, Kookmin University	- Related material collection and analysis - Questionnaire's question papers' formation and analysis - Site survey and local and overseas interview execution
4	PARK Jong-hyuck	Research Fellow, Kookmin Institute for Strategic Governance, Kookmin University	- Related material collection and analysis - Local interview execution - Site survey and local and overseas interview execution - Questionnaire's question papers' formation and analysis
5	CHUNG Mi Sun	Research Assistant Kookmin Institute for Strategic Governance, Kookmin University	- Questionnaire's statistical processing - General administrative operation
6	Nguyen VIET	Vocational Training Administration, Vietnam	- Site specialist (site survey and local and overseas interview arrangement, questionnaire distribution and retrieval)



Official Development Assistance of Vocational Training and an Overview of the Vietnamese Industry and Economy



3

Official Development Assistance of Vocational Training and an Overview of the Vietnamese Industry and Economy



1. ODA in the Field of Vocational Training³⁾

(1) Recent trends of vocational training as an ODA

The exchange of vocational training in international society has been focusing on achieving 'Education for All', the goal of 'Millennium Development Goals'. Therefore elementary education as mandatory level has been the major interest compared to vocational training, and there has been great progress in the field. However, this over-focus on elementary education led to a relative negligence of adult education and vocational education, and critics arose over the issue. Afterwards, as the aid project on elementary education decreased, aid project on vocational training increased. Practical change of the form and approach of official development assistance of vocational training occurred after Paris Declaration in 2005, especially emphasizing improvement of aid effectiveness. This change became the momentum for converting the format of vocational training aid from individual project assistance to program assistance, from single donor nation (institution) project to multi-assistance project as harmonization and partnership between donor and aid recipients, and from aid-provider focus to emphasis on the ownership of aid-recipient.

3) This chapter extracted and organized details from 'Advancement of Official Development Assistance of Vocational Training' Korean Vocational Capacity Promotion Center published in 2009 as a policy material.

(2) Korean experience of the vocational training programs

For the last 20 years, the role and scale of official development assistance of Korea in the international society has steadily increased. After joined OECD DAC in 2010, it now positioned as a renowned donor nation. The assistance for educational sector including vocational training is about 9-20% of the total assistance, which is a high number. The emphasis is on vocational training, which is quite not the same to the trend of international organizations and other donor nations focusing on elementary education. The form of assistance is mainly projects providing facilities and equipments, from which the stereotyped assistance may be in question.

Therefore, variation of assistance format such as not only offering single project but also long-term consultation and systems for operation is needed. This is the evaluation result that the most Korean vocational training projects are one-time, fragmented ones which do not affect the improvement of the vocational training system of the recipient. However, Korean ODA related to vocational training is highly appreciated in aspects of cost-benefit efficiency and satisfaction from the beneficiaries. Especially, Vietnam is satisfied with the details of Korean aid on vocational training, and is exhibiting vigorous support towards Korean-styled technical human resource training program and vocational training institution system. It is because although Korea-Vietnam School support was a one-time project, the passion of participants and desires of Vietnamese beneficiaries interacted as a mid-long term power for growth, and the representative office of KOICA in Vietnam showed continuous interest and kept supporting within the possible range.



2. Industry and Economy in Vietnam and Its Vocational Training

(1) The Vietnamese Economy and Industrial Policy

The 2nd Phase Upgrading Project of Korea-Vietnam Industrial Technical School was executed in 2007 and 2008, during when the most important event was the global financial crisis that took place in the latter half of 2008. Vietnam, which recorded the high growth rate of annual average of 7% in the 2000s, could not escape from the impact of financial crisis, recorded GDP growth rate of 6.2% in 2008, 5.3% in 2009, and 6.5% in 2010. However these numbers are remarkably higher compared to the other ASEAN nations with minus growth rates (Cambodia -2.0%/2009, Malaysia -1.7%/2009, and the Philippines 0.9%/2009). Especially, this was when the ratio of secondary industry with manufacturing as the hub started occupying more than half in the whole industry, thanks to the continuous industrial structure renovation policy of the Vietnamese government.

Meanwhile, Vietnam joined WTO in 2006 and as a result, the possibility of development of domestic market increased. Afterwards, the Vietnamese government put enormous effort on attracting foreign investment enterprises, in order to develop the domestic economy as well as to create more jobs through activation of market economy by foreign capital. However most Vietnamese industries were suffered and went through lack of technical manpower. According to the investigation of Labor Market Information Center (LMIFC), Vietnam still is an agriculture-centered nation of which 52% of the whole employees engage in agriculture. But in accordance with the recent rapid industrialization, the agricultural population is on the decrease while manufacturing population is on the increase.

(2) Vocational Education/Training System in Vietnam

According to the Vietnam National Development Plan (2006-2010), the vocational training field has two primary goals: First, expanding financial investment in secondary

and diploma-seeking vocational training, and focus funding on high-quality vocational colleges in order to fulfill the demands of manpower for strategy industry, industrial park, and processing zones. Second, strengthening elementary level of vocational training during the transition and economic readjustment from agriculture to industry, to supply the manpower demand needed to continue the advancement in agricultural field and improve achievements, and support the development of vocational college network. Therefore the Vietnamese government is propelling supports on vocational training institutions on provincial administration level in order to deal with the increase of the need of vocational training in industries.

The Vietnamese government amended the law in 2006 so that the vocational training is now offered at three levels of elementary, secondary-, and diploma compared to the previous two-stage system of short-term and long-term. Also, the government vigorously supports more vocational Schools to elevate to vocational colleges for the improvement of vocational training qualities in national level.

<Table 3-1> Vocational Education/Training System by Levels

Level	Content	Education Period and Entrance Qualification
Elementary Level	Executing Organization : Vocational Center, Vocational Junior School, Vocation College, Technical College Education Purpose : Fostering of semi-skilled worker Graduation degree : Skill certificate	Education Period : 3 Months ~1 Year Entrance Qualification : None
Vocational Junior Level	Executing Organization : Implementation at Vocational Junior School, Vocational College, Technical College Education Purpose: Independent fostering of skilled worker in various category. Graduate Degree : Vocational Secondary Diploma	Education Period : 1 Year ~ 2 Year Entrance Qualification : Junior High and High School Graduate
Vocational college level	Executing Organization : Vocational College, Technical School Education Purpose: Fostering of highly-skilled worker who can work independently in various vocational field with creativity and advanced skill. Graduate Degree : Vocational diploma	Education Period : 2 ~ 3 Year Entrance Qualification : Education above high School

* Rearranged from Vietnam's new education act (2006)

(3) Summary of the Labor Market of Vietnam

Locally and externally, the labor manpower of Vietnam is recognized as being of high quality with 65% being born after 1975 (average age 27) which is an indication of enough labor force. But after 2007, with large cities as the center, shortfall in manpower situations started to appear by unmet demand for skilled laborers, mid-level managers and engineers.

The Vietnamese government sees the manpower shortage as a major stumbling block for its economic growth. According to labor market related material, among the Vietnam laborers of 2007, high School graduates amounted to 23.5%, and for laborers above 15, those who studied at vocational Schools reached 31.9% for 2006 which was a 6.6% increase over last year. Aside from the general education system of Vietnam, there are about 1,900 vocational training organizations nation-wide and among them 20 are vocational specialization college, 243 junior to elementary vocational training School with a total of 263.



Evaluation Results by Evaluation Questions

1. Goal-Performance Evaluation

(1) Summary of the Performance Goals

The performance goal of the project is created during implementation process with the product of PDM (Project Design Matrix). The Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project's overall goal is stipulated in the 'Skilled manpower supply satisfying the request of the industrial manpower market' which has two indicators for proving the achievement: '90% employment of the students', and 'more than 70% satisfactory mark' from the School graduates to the industries' companies. The project purpose stipulates the 'encouragement of School operation for sustainability of technical School education condition' and the five indices were set: 'more than 60% student registration by curriculum', 'more than 90% graduation rate annually for graduates by curriculum', 'obtaining of more than eight training teachers by curriculum', 'maintenance of more than 70% for the government School operation budget support', 'maintenance of more than 15% of the School's operation budget for equipment maintenance and exchange expense', and 'obtaining of graduate-related certification'. Also, the project can be seen by execution stages and if analyzed by input, activity and result, they are as follows. First, for the input stage, the donor nation has contributed some 2.3 million dollars for facility building, equipment provision, dispatch of experts and training education and the recipient has contributed the provision of site for facility, establishment of infrastructure for the facility, provision of transportation convenience for equipment, administrative manpower and convenience provision.

<Table 4-1> PDM of the Korea · Vietnam Industrial Technical School,
the 2nd Phase Upgrading Project

Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumption
<p>Overall Goal</p> <p>1. Supply of skilled manpower accommodating the requirement of the industrial manpower market.</p>	<p>1. Student's Employment Rate (more than 90%)</p> <p>2. Industries' companies satisfaction for School graduates (more than 70%)</p>	<p>1. Statistical material of School or related organization</p> <p>2. Questionnaire or interview of satisfaction fro industries' companies</p>	<p>1. The industry structure or economic condition is not changing rapidly or deteriorating for project subject region.</p> <p>2. The graduates for relation fields are remaining in their jobs continuously.</p> <p>3. External (from other nations or regions) manpower is not being substituted from related field.</p>
<p>Project Purpose</p> <p>1. Development of School operation through continuous developments by technical School education conditions and infrastructures.</p>	<p>1. Student registrations of above 60 persons for each curriculum</p> <p>2. Annual graduates of above 90% by curriculum.</p> <p>3. Obtaining of more than 8 training teachers by curriculum.</p> <p>4. More than 70% of support for School operational budget by the government.</p> <p>5. More than 15% of operational budget for equipment maintenance and replacement expense.</p> <p>6. Obtaining of certifications for graduate-related fields.</p>	<p>1. Status material for annual student registrations and graduates.</p> <p>2. Status material for support curriculum training teacher and managerial employment personnel</p> <p>3. School budget status</p> <p>4. Operational status material for facility and equipment maintenance.</p> <p>5. Obtaining status material for supported curriculum student certifications.</p>	<p>1. The operational organization is being operated efficiently and transparently.</p> <p>2. The Ministry of Labor, and the province people's committee are supporting the budget sufficiently.</p>
<p>Outputs</p> <p>1. Strengthening of School operation facility expansion, related practice equipments and fixtures</p> <p>2. Through specialists and trainees, strengthening of technical education capability by policy establishment of textbook development and vocational fields and by advising, establishment of technical School operational basic plan.</p>	<p>1. Satisfactory level of practice equipment usage (above normal)</p> <p>2. Education facility satisfactory level (above normal)</p> <p>3. Training process satisfactory level (above normal)</p> <p>4. Execution status and basic planning establishment of School operation.</p>	<p>1. Facility status</p> <p>2. Equipment installation report</p> <p>3. Training equipment and facility satisfactory level survey</p> <p>4. Training result report (satisfactory level survey)</p> <p>5. Specialist dispatch result report (School operation basic plan, academic operation plan)</p>	<p>1. Establishment of close cooperation relation with project execution-related recipient side government (related organization)</p> <p>2. Amendment cause does not occur with major support request content.</p>

<Table 4-1> continued

Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumption
3. By connecting method between vocational projects for existing support from KOICA, pursuing of sustainable development	5. Execution status of basic planning establishment and academic operation by curriculum 6. Publishing of practice textbook by subject	6. Textbook publishing plan	
<p>Activities</p> <ol style="list-style-type: none"> 1. Architectural and technical advising for technical School 2. Establishing, inspecting, transporting, installing and operational planning for equipment support/purchasing plan 3. Transfer of technology: Invitational training and specialist dispatch. 4. Other: project planning establishment, establishment of training operation, site survey, selection of outsourcing companies, follow-up 	<p>Input</p> <ol style="list-style-type: none"> 1. Our side: Total 2.3 million dollars input <ul style="list-style-type: none"> - Building (950,000 dollars/total/3,500m2) - Equipment support (800,000 dollars) - Specialist dispatch (180,000 dollars/ to9 million)tal - Trainee invitation (340,000 dollars/total 30 million dollars) - Practice textbook and curriculum development - Sustainable School operation advising - Other preliminary expense (U\$50,000) 2. Recipient side : provision of site, infrastructure establishment, custom exemption, administrative manpower and convenience provision 		<ol style="list-style-type: none"> 1. Obtaining of optimal project participation manpower and organization 2. Cause for sudden rise in equipment support-related expenses (Ex.: Material or logistics expense increase). <p>Pre-Condition</p> <ol style="list-style-type: none"> 1. The aid recipient does not change the project priority and execution willingness 2. The government of Vietnam would support the technical School continuously. 3. Sufficient demand of industry technical manpower for the support curriculum.

(2) Survey Result of the 2nd Phase Upgrading Project Product

The Korea ·Vietnam Industrial Technical School opened in 2000 has at the present 2,361 students (2-year program 572, 3-year program 1,789) and staffs (Regular 87, contract 64, Korean language 18 and temporary 1 personnel). By curriculum, the number of student of automobile department is the largest with 525 students (22.2%) followed by electrical with 472 (20.0%), welding with 383 (16.2%), and electronics with 337 (14.3%). Also, for the number of teachers by subject, the general subjects were the highest at 19 (17.3%) followed by welding at 16 (14.5%) and machinery and electronics at 14 (12.7%) respectively. As of 2007, there were 89 staffs and teachers and in 2011, it increased to 145 personnel

(38.6%). For the identical period annually, for the ratio of staff to teachers, the staff ratio decreased from 29.2% to 24.1% and the teacher ratio increased from 70.8% to 75.9%.

In 2007 the ratio of degrees obtained by teacher was 1.6% in graduate degree, 81.0% in bachelor, 17.5% in specialized bachelor. But by 2011, it changed to 56.4% graduate degree, 39.1% bachelor, 4.1% specialist bachelor. This led to the elevation to a three-year vocational college by the 2nd Phase Upgrading Project. Thanks to the improvement of teaching staff capacity, in only 4~5 years, the ratio of teachers with graduate degree took up more than half meaning rapid quality increase based on the indirect and direct 2nd Phase Upgrading Project effectiveness which we should interpret as a major result. After the Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project, those who stopped their studies at a mid-point numbered 307 students with the industrial electronics engineering department taking the largest number of 74, the automobile department with 55, the electrical department with 54 in that order.

Meanwhile, in comparing before and after the Korea-Vietnam Industrial Technical School second project, the number of teachers changed from 66 to 107, a 1.6 times increase and the number of students increased from 624 to 2,363, a 3.8 times increase. Especially at the end of the first project, the number of students were 223 (School opening / 2000) and at the end of the second project, the number of students were 2,361 which showed an increase of 10.6 times.

During the 2nd Phase Upgrading Project for the Korea-Vietnam Industrial Technical School, in order to expand the School, KOICA, the Vietnamese government, and the School invested 1.8 million dollars, 16.739 billion dong and 2.3 billion dong respectively. This is an indication of the Vietnamese government and School investing by responding to the ODA funding for the 2nd Phase Upgrading Project. Therefore, this can be reviewed as playing an important role in concluding the 2nd Phase Upgrading Project successfully through the assistance of the Vietnamese government and the School.

(3) Performance Evaluation Based upon PDM

According to the PDM constructed for the Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project, it is categorized according to overall goal, project purpose, outputs, and activities.

■ Evaluation for 'Overall goal' of PDM

The student employment rate of more than 90% was achieved annually and through the interviews with the companies employing the graduates, more than 70% level of satisfaction was confirmed. Therefore, the 2nd Phase Upgrading Project of the Korea -Vietnam Industrial Technical School can be viewed as achieving the overall goal of PDM.

■ Evaluation of the PDM 'Project purpose'

<Table 4-2> Project purpose and Actual Performance

No	Performance Index	Project goal	Project result	Review	Comment
1	Number of registered students by curriculum	More than 60 persons	74.5 persons	Achieved	July 2011 (average)
2	Ratio of annual graduates by curriculum	More than 90%	92.5%	Achieved	2009,2010(average)
3	Number of personnel training teachers by curriculum	More than 8 persons	11.9 persons	Achieved	July 2011 (average)
4	Government support ratio for operational budget	More than 70%	100%	Achieved	Dependent on government support
5	Ratio of equipment maintenance repair verses operational budget	More than 15%	3.9%	Achieved	2009~2011(average)
6	Certificates for graduates-related field	Not established	-	-	Non-execution of qualification system

First, as for the number of students registered by curriculum, the present attending student number was an average of 74.5 which exceeded the project purpose of more than 60 persons. Second, annual graduate ratio by curriculum can be judged based on the mid-period dropout rate of the attending student and by curriculum; it was at an average of 7.5% for those dropping out their studies at mid-period for the years of 2008 to 2010 by curriculum. As a result, the graduate ratio is 92.5% which is more than the project purpose of 90%. Third, for the training teacher by curriculum, the average teacher number by curriculum for the present 2011 is 11.9 which are much higher than the project purpose of eight. Fourth, the government budget support rate for the school operation signifies the ratio of the central and provincial government support to the entire School budget. Since the government budget is fairly and evenly distributed in line with the feature of a socialist country, we can assume that the School is being operated totally by the government. But, for a part of the budget, it is being appropriated through tuition; Vietnam in principle does not permit for-profit activities for its educational organizations. As a consequence, the project purpose for the School's operation can be considered to have been achieved for its budget support. Fifth, for its equipment maintenance, repair and exchange expenses, its goal is set at above 15% of the School operation budget. But a survey result showed this figure being 1.8% for 2009, 4.5% for 2010 and 5.5% for 2011 (expected). This means that the project goal has not been achieved. But, the annual increase in the budget ratio for equipment maintenance, repair and exchange can be seen as a positive result. Sixth, for the certification obtained for graduate-related field, it has been established as a project goal but due to the lack of concrete goal figures, we could not observe the results.

■ Review for 'Output' of PDM

<Table 4-3> Evaluation of Output Goals

No	Result Index	Output Goal	Actual Output	Comment
1	Equipment usage satisfactory level	Above normal	4.30(out of max. of 5)	Questionnaire appropriateness(No.11)
2	Education facility satisfactory level	Above normal	4.43(out of max. of 5)	Questionnaire appropriateness(No.10)
3	Training program satisfactory level	Above normal	4.21(out of max. of 5)	Questionnaire appropriateness(No.13)
4	Basic planning establishment for School operation	Execution status	Executed	Field study
5	Basic planning establishment for academic operation by curriculum	Execution status	Executed	Field study
6	Textbooks for practice by subject	Publishing	Published	Field study

■ Evaluation on the 'Activity' of PDM

The activities for the Korea-Vietnam Industrial Technical School 2nd phase Upgrading Project were formed centering on 'technical School building and technical advising', 'equipment support/purchasing planning establishment, inspection, transportation, installation and operational planning', 'technical transfer: invitational training and dispatch of experts', and 'others: project planning establishment, establishment of the school operation plan, site survey, outsourcing selection, follow-up. Such activity achievement status is judged by input elements like funding for the donor nation (total 2.3 million dollars) and for the recipient, provision of project site, infrastructure establishment, customs exemption, administrative manpower and convenience provision. We have been able to verify the performance result through the recipient input elements such as building (U\$950,000/3,500^{m2}), equipment support (U\$800,000), specialist dispatch (U\$160,000/total 9MM), trainee invitation (U\$340,000/total 30MM) and other reserve expenses (U\$50,000). Also, we were able to verify the content of the

donor input element from the related document of the field study. Therefore we can assume that the results have been achieved for the Korea-Vietnam Industrial Technical School 2nd phase Upgrading Project.

■ Evaluation of the PDM Goal Structure

The project purpose is 'By supporting the vocational education training foundation structure, employment creation and economic development contribution through fostering of skilled manpower'. Also, according to PDM, for the overall goal, it is shown as 'Supplying of skilled manpower satisfied to the request of the labor market' and the project purpose is shown as 'encouragement of School operation for sustainability of technical School education condition'.

Despite several limits of the project contents, the overall goal and project purpose are set at an expanded scope so as a goal, its appropriateness is not enough. Also, for the achievement status of the goal, the verifiable indicators are limited to the project result, so we cannot assume that an exact causal relationship that might exist between the goal and the index. Especially for the performance index of the project purpose, the index is formed so that the result cannot be readily observed. For example, student registration above 60 by curriculum can be relatively easy to achieve considering that the applying students exceed that of entering students. Also, as for the government budget input ratio, since in the socialist nation of Vietnam considers education as its distinct role, the government budget input ratio shows an identical rank in all schools. Therefore we cannot assume this to be a result of a project. Despite the fact that obtaining of certification in the graduate-related field has been set as an index, due to absence of an official national certification system in Vietnam, this index in itself cannot be measurable.



2. Summary of Interviews

(1) Domestic Interviews

First, the project created a platform for leaping into the next stage. Through KOICA's second support, the ability of the teachers improved and facilities were expanded to enable additional recruitment of students. As a result, it has been elevated from a two-year to three-year program and the attending students participated in various vocational-related competition obtained favorable results. From the perspective of the donor nation, since the experts participated in this project not only provided techniques of new construction or equipments but also had their genuine concern for the development of the School, the project has exhibited considerable significance.

For the Korea-Vietnam Industrial Technical School second project performance evaluation regarding the input elements of the participators and participatory organizations, it was based on the interview and related material review result. The result showed project appropriateness, effectiveness and the efficiency, and they all showed positive results especially for the project implementing agency (PMC) participated in the project. They were greatly satisfied with the project performance. Since they are the project participator and participating organization, it is only natural that they have a positive opinion for their own projects.

(2) Interviews in Vietnam

A. Interview with the Principal of the Korea-Vietnam Industrial Technical School

The most important reason for the request of the 2nd Upgrading Project of the Korea-Vietnam Industrial Technical School was that the School was in need of

support for the elevation to a vocational college. Since the first support project for School establishment proceeded successfully, it was natural to expect the second support as requested. The successful case of the Korea-Vietnam technical School became known to the many teenagers of the region which led to steady increase of many applicants for the School but the facility of the School was greatly insufficient. Among the developmental planning of the School, from March 2007 vocational secondary level, it is expected to be elevated to a vocational college level so the necessity for facility and education equipments for the purpose of practice classes is urgent.

The principal of the Korea-Vietnam Industrial Technical School explained the project effects as follows. First, he mentioned that the most important effect was to expand the practice time. Second, with the expansion of the School and facilities, the entering students have increased from the annual recruitment around 300 students to about 1000 with provision of education opportunity to many regions. Third, through the 2nd phase Upgrading Project, for the newly built practice facility and educational equipment, it acted greatly in playing a role in the elevation of the Korea-Vietnam Industrial Technical School into a vocational specializing college. Fourth, through the 2nd phase Upgrading Project, the School staff also had the opportunity to learn the working method of the Korean people which was also valued highly, and after the project, they maintained their relationship with Korean specialists and continued to receive assistance. Fifth, after the project completion, KOICA dispatched volunteers in order to support any future problems from occurring. Presently, there are some 3 volunteers teaching Korean. For the various training opportunities related to vocational training, although small in numbers, it includes the School teachers to invitational training to Korea to study the advanced education system.

Meanwhile, after the 2nd phase Upgrading Project, by the spreading of recognition that the Korea-Vietnam Industrial Technical School produced outstanding and skilled graduates, corporations around the nation have started to inquire to

employ its graduates and some Korean corporations have visited the School directly to select potential graduates. Various graduates have earned leading positions within their corporations to develop themselves step-by-step into mid-level employees. For those who are employed overseas, they remit some of their earning back to their families, playing a key role in raising the income of Nghệ An province. The Korea-Vietnam Industrial Technical School in order to recruit quality students annually, visits the high schools in Nghệ An province and invites the principals to the School and hold explanatory sessions (seminars). Consequently after graduating, many high school graduates visit the School in order to enter the School.

Much assistance has been received through the 2nd phase Upgrading Project for the School; however, following points need to be addressed.

First, with time, the practice equipments have become insufficient and obsolete, due to too many students for limited equipments. Second, since the teacher training is carried out in Vietnam, there are insufficient opportunities for interacting with advanced technologies. At the KOICA Vietnam office, various training opportunities related to vocational training are offered to the teachers of Korea-Vietnam industrial School. This is somewhat better than other Schools but the size is not considerable so the effect is limited. Third, the School desires to apply the advanced curriculum and teaching methods, especially of Korean education method, but the opportunities are insufficient. The demand to collaborate with Korean junior college or engineering college is there, but there are hardly any opportunities so limitations exist.

B. Interview with Teachers

Interview with the School teachers was executed by listening to the opinions about approximately 70 people from about 100 teachers from 7 curriculums.

The automobile department for the Korea-Vietnam Industrial Technical School is the most popular curriculum and employment is readily available. They mostly

find employment in automobile such as repair centers and the employment ratio is very high. Since the demand for automobile is expected to increase sharply, many students are applying for the major. The information communication department is one of the least popular major. The reason is that many students interested in this major are attending the 4-year program, so this major is relatively not much popular among students. Presently, in order to improve the curriculum of this major, review is ongoing to have curriculum exchange with Korea's Youngsan University. For the electronics department graduates, 3 people are now working as teachers in this school. The welding department is referred to as the industrial facility department with some 95% got employed, which is very high employment, but some fail to get employed due to the aptitude of the student, and family problems.

C. Interviews with Students

The interview of the enrolled student was carried out with some 80 students. Since the field study was done in the school vacation, the interview was mostly done with the students living at nearby regions. The major interview contents for the students are as follows.

As a junior of the electronics department, in order to choose a job that has a future, he has selected the Korea-Vietnam Industrial Technical School and he was introduced to the School by a close friend of his. For the School life, he was more satisfied than expected. For a junior from the information communication department, the practice-centered curriculum of the School appealed to him more than the theory-centered regular 4-year college. For an electrical department student, because of the frequent breakdown of the equipment from the first project, there were cases when he could not have practical training. But for those studying under the 2nd phase Upgrading Project, the students were overall satisfied with the practice room and the lecture room with the equipment provided being satisfactory. But for some equipment, due to the lack of numbers,

students had to take turns to have practical training with the equipment. As for the equipments provided in the first project, they were already old and worn-out so proper practice training could not take place with them.

For the juniors of the automobile department, they were allowed to enter by taking an examination. Due to the extra and new facilities and equipments, practical training was able to take place properly. Most students wished to work in Korea after graduation, and the fact that they could work in Korea or other countries was an extremely important comparative advantage to them as compared to other Schools. For the electrical department students, its practice equipments were provided under the first project so its obsolescence was serious and they broke down often. For the equipment that broke down, most of them were repaired by the professors so they did not affect the next practice class greatly. For the 2nd phase Upgrading Project provided practice unit, there were instances of the windows breaking during the monsoon or typhoon but no instances of rain leaking or problems with poor construction. For the students, upon graduation, most wanted to work in Korea, but the selection system of the Korean government was limited to general laborers. As a consequence, even if they possessed skills, they could only apply as general laborers so the students mentioned about such system.

D. Interviews with Public Officials in Nghệ An Province

The assistant committee chairman in the educational and cultural department of Nghệ An province people's committee indicated that as a provincial government, the School's 2nd phase Upgrading Project contributed greatly to the regional economy, local community and culture. Especially, due to the quality vocational education for the region's teenagers, it contributed greatly to the laborer's income increase. For the last some 10 years, the School has expanded in size annually with the graduates of employment rate hovering above 90%. Such figures can be considered higher than other Schools. As compared to other Schools, its graduates employed more in Korea, Taiwan, Japan and other overseas locations.

Meanwhile, as a provincial government, the success factors for the 2nd Phase Upgrading Project were pointed out as follows. First, the quality of the education training was outstanding. The second project educational training program was superior in quality to other Schools which led to success. Second, due to the parallel education of both theory and practice, additional success has been obtained. For most Vietnamese vocational educational training organization, due to the insufficient practice facility, the education ended up mostly with the theory education. Due to the installation of the newest equipment from the second stage project, the latest technology was learned with both the teachers and students becoming extremely satisfied.

The School was one of the most model-oriented vocational training School within Vietnam for the last 10 years with short-term students (3-9 months) reaching 1,700 people with the total graduates being about 9,800. From the position of the people's committee of Nghệ An province region, an even spread of support should be made not only to the Korea-Vietnam Industrial Technical School in particular but to all Schools in the region. However, the committee is working together with the School to elevate the position of the school to a 4-year technical university by around 2015.

E. Interviews with Parents

The interview with the parents is conducted by the five people under the recommendation from the school. All of them are regional residents with children at least one child or more who have graduated from the School and have been employed locally or overseas. They all had a relative close knowledge of the School and were very satisfied with their children being graduates of the School.



3. Results of Questionnaire Surveys

(1) Survey Items

The 2nd phase Upgrading Project of the School's performance evaluation questionnaire follows that of the OECD DAC review standard in principle, but by reflecting of the project specialty, it is formed as follows.

■ Survey questions for appropriateness

The questionnaire for appropriateness is categorized into question formation of School development stage, demand perspective, and project progression stage: First, for the School development stage appropriateness regarding the School's developmental process, the project's necessity, and request for the School's educational capacity strengthening, the questions were formed from the macro-economic perspective by designating the School personnel and civil servant as questioning subjects. Second, from the demand perspective appropriateness, the questions are formed around the national, regional, industrial and educational demands and according to the content, appropriate response subject groups were distinguished. For the national demand, the question of Vietnam's economic developmental plan and project connectivity were posed, and for regional demand, Nghệ An province requirement for the project. For the industrial demand, the question was posed around the skilled knowledge possession and skilled manpower supply for the industrial site. For the educational demand, the questions were posed on whether the School was of any assistance as the upper-ranked education organization after high School. Third, the appropriateness of the project progression stage is a time series question which is an appropriateness question of the project planning, execution, and result. In other words, for each stage perspective, the question was formed to find out the project appropriateness.

■ Survey questions for Efficiency

The subjects for efficiency evaluation are expense, time and execution and the questionnaire is also subjected to such formation. For the efficiency evaluation, both the resource input and the output for the project are the key information, so the responding subject of the questionnaire was limited to the School staffs and civil servants.

■ Survey questions for Effectiveness

The effectiveness questions are formed by category of project result, project execution effect, and effect by project subject. The project result was formed centering on the achievement of purpose and goal and development effect of the first project. For the response group to this question, it was limited to the School staffs and civil servants for the purpose of raising the explanatory strength to the survey result. The project execution effect is to know the effectiveness of the project process. Questions were made with the usage of the dispatched experts, potential risk management that might occur during the project period, and donor support effect in detail. The effect by the project subject is examined on the effects and benefits of the project from each beneficiary's point of view, categorized by enrolled students, corporations, high School students, etc.

■ Survey questions for Impacts

In order to measure the degree of impacts, questions are set centering on the project beneficiaries of enrolled students, graduates, the Korea-Vietnam Industrial Technical School, regional society, the recipient and donor nations. The impact question for the enrolled students and graduates were set asking the increase in employment opportunity, ability improvement, and the change in corporation's preference to the School. The impact of the Korea -Vietnam

Industrial Technical School is examined on the aspects from the Vietnam Industrial Technical education, the improvement of the School image, the increase of applicants, and the increase in the pride of the School. For the impact to the regional society, the questions are dealing with regional poverty level reduction, regional welfare level improvement, and regional economic growth contribution. Impact to the recipient and donor nation was checked on the industrial manpower supply, impact on the recipient regarding the possibility of implementing similar project and national image development of the donor nation.

- Survey questions for Sustainability

The sustainability is whether the School can continue its development. Therefore, the sustainability is observed from internal and external aspects. Also satisfaction of students is recognized as the key factor for the sustainability thereby making separate question.

For the external elements of the sustainability, the questions were formed asking recipient and donor dimension support, increase in the corporations employing students, and increase in the applicants. As for the internal elements, questions were about the maintenance and management of project performance and the development efforts of the school. The question for the graduates' satisfaction was toward job and the level of their wage. The response sgroups were the graduates and corporations employing the graduates.

(2) Actual Survey Results

A. Analytical Methods

Responses for all questions were converted and analyzed by Likert scale (5 points survey research approach). The analysis was done by evaluation criteria and the average figures between groups were compared by following three

common features (designation, age and the level of project recognition). The designation was included to find out whether one's status might affect the opinions on the 2nd Project. The age was selected as a variable to observe whether the opinions of direct beneficiary, mostly 20s differ from other age group. The level of recognition on the second project was included to find out the proportional relationship between the level of project recognition and project performance. The average differences between the groups were inspected using the distribution analysis, ANOVA.

B. Mean comparison between groups for appropriateness evaluation

Evaluation result on the project appropriateness by where people belong to was 4.81 (5.00 points maximum) for civil servants which was the highest, 4.44 for School staffs, 4.32 for graduates, 4.30 for high School teachers, 4.21 for students and 4.16 for corporations employing graduates respectively. As for the average difference among respondent groups, the School staffs showed a significant higher statistics than the enrolled students, and the civil servants showed a higher significant statistics than the enrolled students and the corporations employing graduates. (Distribution Analysis, $p < 0.05$, Scheffe follow-up inspection) As a consequence, regardless of the affiliation, most respondents showed a positive opinion for the project appropriateness and especially the School staffs and civil servants recognize the project having more appropriateness than other respondents. But for the civil servants, the number of sample was too small so besides the statistical significance, as other prior indicated interview, it is more significant to complement the quality material.

The result for the project appropriateness by age was 4.46 (maximum 5.00) for the 50s, the highest figure. Between the respondent age groups, in comparing the average difference, there was no meaningful difference discovered among the groups. (Distribution Analysis, $p < 0.05$, Scheffe follow-up inspection) As a consequence, regardless of age, most respondents showed a positive view on the project

appropriateness. As for the project recognition on the appropriateness, those who were well aware were measured at 4.62 to mark the highest figure. Among the respondent groups, in comparing the average difference, the statistics showed a high significant standard. Therefore, we can conclude that the appropriateness by the level of project recognition is positive.

As a consequence, from the result of project appropriateness questions, it is reasonable that most respondents see the project as being very appropriate, especially the School staffs and civil servants. Also it was analyzed that the project recognition level has a proportionate relationship. But for the civil servants, due to the small sample, its statistical significant was considered insignificant.

C. Mean Comparison by Groups for Efficiency

Project efficiency seen by the affiliation shows that the civil servants mark 4.50 points(max. 5.00), while that of School staffs was 4.36. In comparing the average difference for these respondent groups, there was no noticeable difference between groups of statistical significance. (Analysis of Variance, $p < 0.05$, Scheffe Follow-up inspection). As a consequence, regardless of the affiliation, most respondents analyzed as recognizing the project as being very efficient. However, for the civil servants, since the samples were too small, they were considered as insignificant.

The average figure measuring the project efficiency by age shows that those in their 50s mark 4.53 points (max. 5.00 points), which was the highest. For the difference comparison of efficiency, we could not discover any significant group statistically. Therefore, regardless of the age, the respondents overall recognize the project as efficient. The average figure measuring the project efficiency by the level of project recognition shows that those who responded as knowing well mark 4.61 points (max. points 5.00), which was the highest. In comparing the average difference, the efficiency was seen at a high significant statistical level by respondent groups for the level of project recognition. (Analysis of Variance, $p < 0.05$,

Scheffe follow-up inspection). As a consequence, when seen from the aspects of the level of project recognition, the project efficiency was analyzed as being positive. In sum, for the questions of project efficiency, most respondents answered that the project was recognized as being very efficient. Also, it was analyzed as being proportionately related with the level of project recognition.

D. Mean Comparison by Groups for Effectiveness

Project effectiveness by affiliation was observed that high school teachers and civil servants mark as 4.60 (max. points of 5.00), the highest point, 4.31 points for School staffs, 4.07 points for the enrolled students, 4.06 points for graduates, and 3.94 points for corporations employing the graduates respectively. Between the respondent groups, in comparing the average difference, School personnel group showed a high significant statistical level than those of the graduate groups and the corporation groups. The high School teacher groups showed a high significant statistical level than those of the enrolled students, graduates and the corporations. Therefore, regardless of the affiliation, we can analyze that most respondent recognize the project as being effective. Especially the School staffs and high School teachers, unlike other respondents, consider the project as being more effective.

In terms of the project effectiveness by age, answers for those in their 40s got 4.39 points (max. points of 5.00), which was the highest. For the respondent age groups, in comparing the efficiency, we were unable to discover a statistical significance between group differences. (Analysis of Variance, $p < 0.05$, Scheffe follow-up inspection) Therefore, regardless of the age, we can analyze that most respondents recognize the project as being effective. The project effectiveness by the level of project recognition was 4.50 points (max. point of 5.00) for those with high level of familiarity, which was the highest. For the respondent groups, in comparing the average difference, the effectiveness was seen as a high significance

level statistically. (Analysis of Variance, $p < 0.05$, Scheffe follow-up inspection). Consequently, we can analyze that the project effectiveness is positive.

As noted above, regarding the effectiveness, most respondents answered the project as being effective and especially, the School staffs and high School teachers recognized it relatively more effective. Also, it was analyzed that the project effectiveness is proportionately relative to the recognition level of the project.

E. Mean Comparison by Groups for Impacts

The project impact by the affiliation obtained the result of 4.49 points (max. 5.00) from the School staffs showing the highest figure, civil servants at 4.37, the high School teachers at 4.26, the corporations at 4.20, the graduates at 4.17, and the enrolled students at 4.11 respectively. Between the respondent groups, in comparing the average difference, compared to the enrolled students and graduates, the school staffs showed a significant high level statistically. (Analysis of Variance, $p < 0.05$, Scheffe follow-up inspection) As a consequence, regardless of the affiliation, most respondents showed a positive view for the project impact and especially, the School staffs recognized that the project impact was larger. However, since the civil servant sample numbers were too small, it might not carry much significance statistically.

The project impact by the age brought high figures from the age group of over 50s showing the highest at 4.46 (max. points 5.00). Between the respondent age groups, in comparing the average difference, we could not discover any significant difference among the groups. As a consequence, regardless of the age, it is analyzed that the most respondents recognize that the project impact is positive.

The project impact by the recognition level toward the project acquired high points of 4.63 (max. points 5.00) from those who are highly familiar with the project. For the respondent groups, in comparing the average difference, it

showed a high level of impact at a significant level statistically. (Analysis of Variance, $p < 0.05$, Scheffe follow-up inspection) Therefore, we can analyze that the project impact is positive. As indicated above, most respondents viewed that the project impact was large, especially the School staffs having recognized relatively more impact. Also it was analyzed as having proportionate relations with the recognition level of the project.

F. Mean Comparison by Groups for Sustainability

Project sustainability by the affiliation brought the result of highest figure of 4.63 (max. points 5.00) from the civil servants, high school teachers at 4.60, School staffs at 4.22, graduates at 4.08, enrolled students at 4.05 and corporations employing the graduates at 4.05 respectively. Between the respondent groups, in comparing the average differences, the high School teacher compared to the enrolled students which was at significant level statistically. As a consequence, regardless of the affiliation, most respondent review it as being positive for the project sustainability especially, it was analyzed as the high School teachers having larger recognition than the attending students for project sustainability.

The 'project sustainability evaluation' by age (max. points 5.00) showed a high figure with above 50s at 4.29 which was the highest. Between the respondent groups, in comparing the sustainability average difference, we could not discover any group that was significant statistically. As a consequence, regardless of age, most respondents were analyzed as being positive for the project sustainability. For the 'project sustainability evaluation' on the project recognition (max. points 5.00), it showed a high level of familiarity at 4.41 which was the highest. Between the respondent groups for sustainability average difference, it showed high figures along with the project recognition respondent groups at significant level statistically. (Analysis of Variance, $p < 0.05$, Scheffe follow-up inspection) As a consequence, according to the project recognition, it was analyzed as being positive for the project sustainability.

As seen from the above, for questions regarding project sustainability, most respondents view it as having large project sustainability. Especially it was analyzed that the high School teachers consider the project as having relatively larger sustainability than the enrolled students do. Also, it was analyzed that the project sustainability has proportionate relations with the project recognition.

G. Mean Comparison by Groups for cross-cutting issues

For the 'project cross-cutting issue' by affiliation (max. points 5.00), the result showed a high figure of 4.88 for the civil servant which was the highest, for the School staffs 4.53, the enrolled students 4.37, graduates 4.28 and high School teachers 4.23 respectively. For the respondents groups, in comparing the average difference, we could not discover any difference for the significant groups statistically. (Analysis of Variance, $p < 0.05$, Scheffe follow-up inspection) As a consequence, regardless of affiliation, it was analyzed that most respondents, showed a positive recognition for the project's cross-cutting issues.

The evaluation result for the cross-cutting issue by age (max. points 5.00) showed a high level with age above 50s of 4.61 which is the highest. For the respondents, in comparing the average difference, we could not discover any difference for the significant groups statistically. (Analysis of Variance, $p < 0.05$, Scheffe follow-up inspection) As a consequence, regardless of the age, most respondents, in analyzing the project cross-cutting issues, recognized the project as being positive. For the 'project cross-cutting issue' by the project recognition (max. points 5.00), it was shown as being high with full familiarity of 4.63 which was the highest. For the respondent groups, in comparing the average difference, the cross-cutting issue was seen as being high significant statistically according to the degree of recognition to the project. (Analysis of Variance, $p < 0.05$, Scheffe follow-up inspection) As a consequence, following the project recognition, the project's cross-cutting issue was analyzed as being positive.

As indicated above, it has been analyzed that the overall respondents were positive to the cross-cutting issue. It also has been analyzed that the project cross-cutting issue have proportionate relation with project recognition.



4. Survey Result Based upon Review Standards

(1) Appropriateness

① Assessment on the compliance of the project goal with the OECD DAC directives

The Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project goals are 'vocational training infrastructure support' and 'fostering of skilled manpower for employment creation and economic development contribution'. Regarding the second project goal, the employment creation and economic development is connected with the new millennium development goal's absolute poverty and famine eradication. Also it infers that Korea and Vietnam are connected as the donor and recipient and establish a worldwide partnership based on the development of the new millennium development goal. As a consequence, the Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project can be observed as complying with the directives of OECD DAC.

② Assessment on the appropriateness to the developmental stages

From the initial stages of the 2000 Korea-Vietnam Industrial Technical School establishment, the latest equipment were provided with new educational programs and technologies to produce outstanding industrial technical manpower. As a result the satisfactory level from the corporations was high, which led to

annual improvement in the employment rate. Due to the popularity of this School, it led to the increase in applicants which resulted in rising competition rate. To that end, expansion was necessary to increase the number of students, the practice facility and educational equipment. Based on such demand, the project was initiated and since it started through the support of KOICA, the 2nd Phase Upgrading Project for School developmental stage can be judged as coming at an appropriate time. Such qualitative review was proven quantitatively by the questionnaire. For the questionnaire of whether the project for the School development stage was appropriate, the School staffs indicated a mark of 4.49 (out of 5) so it can be seen as an absolute majority indicating its positive nature.

③ Assessment of reflecting policy demand from the recipient country

The Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project is a part of the vocational educational training, therefore we have to review it in line with the Vietnam's government vocational educational training program. From the mid-2000s, Vietnam's economy grew rapidly with its structure spreading from agriculture to industry and service. This signifies that throughout Vietnam's economy development, the demand for industrial manpower has increased which proves that the Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project was appropriate for that matter.

The Upgrading Project accommodated well with Vietnam orientation of becoming an industrial nation and reflected well the needs of the recipient for fostering the skilled manpower fostering and executing vocational training. The qualitative assessment accommodates well with the quantitative results of various questionnaires. We already observed the recipient demand through questionnaire categorized by the recipient economic development planning, the industrial manpower supply and the demands of Nghệ An province and the results were 4.42, 4.53 and 4.83 respectively. Therefore, the project reflected appropriately with the demands from the recipient.

④ Assessment on the conformity of the donor's aid strategy

According to the publication of KOICA 'Mid-long term assistance project planning for Vietnam', it proposes 7 strategies for Korea's aid strategy. According to the document, the Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project is seen as an effective project which targets the mid-northern region and matches well with the assistance strategy of Vietnam by KOICA.

⑤ Assessment of appropriateness based on the implementation stages

In 2004, Vietnam first requested its support, and was executed in line with the general project process. According to the interview survey, since the Korea-Vietnam Industrial Technical School was first supported by KOICA (first stage support project), only some additional support was requested. However, upon the review of support by KOICA, the needs of additional practice rooms, provision of educational equipment, operation of programs for School and teachers' ability improvement were found to be necessary. For each project stage, report and related materials were created and managed, and even after the project completion, the staffs on the project implementing agency, the donor side, continued their close contact with the recipient part. Especially it was positive that the PDM was made in order to attain the project goal from the planning stage although it was roughly made. Therefore, we can state that the Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project has followed faithfully with the general public-sector development assistance project procedure, and many activities were carried out in raising its performance. Besides, the question score for the appropriateness of the project planning, reached 4.44 points (out of max. 5), and for the appropriateness of the project implementation 4.66 points (out of max. 5).

⑥ Assessment on appropriateness of output and performance

Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project's outputs were new construction of practice facility, provision of education equipment, execution of Korean invitational training, and development of teacher training program. Its performance was creation of qualified graduates, development of educational curriculum reflecting the industrial demand and the creation of a School for high School graduates. The appropriateness for aforementioned outputs and performance can be observed through survey questionnaire. For the project outputs, the score for the question asking the appropriateness of the new practice facility building was 4.43 (out of max. 5), for the Korean invitational training appropriateness 4.21 (out of max. 5), and for the teacher training program appropriateness, it was 4.36 (out of max. 5).

In conclusion, for project appropriateness-related questions, the response from the subject group in general showed a high level of appropriateness for this project. Even in the questionnaire result, it also showed such qualitative result of appropriateness with a very strong positive score of 4.41 points. As a consequence, we can assume that the appropriateness for the Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project's output and performance are very high.

(2) Efficiency

① Efficiency of the project expenses

For the Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project, the donor allocation expense was total of US \$2.3 million, and it was spent on the construction of new practice facility, provision of educational equipment, execution of invitational training and dispatch of specialists. Meanwhile, the efficiency can be assessed through interview and survey to the project stakeholders of the

recipient. According to the interview, most stakeholders satisfied with the project output and commented that the minimum expense was spent. As a consequence, from the perspective of the donor, it can be said that with minimum expense, the maximum effect was realized and from the perspective of the recipient, without input of cash and only with goods, the outputs were obtained thereby attaining cost-efficiency. As for the questionnaire of cost-efficiency, a score of 4.31 (out of max. 5) was obtained which was an absolute positive response from the majority.

② Efficiency of the project period

According to the implementation survey result report, it was planned to start the project in February 2007 and terminate in November 2009. The project progressed in line with the project's entire schedule which can be verified by the site survey interview. But for certain details, due to special circumstances, the planning points and the execution points were difference. But overall, the schedule was executed within the time framework of the planning. Therefore, we can assume that sufficient efficiency was achieved. Especially with the active support from the recipient government, there were no delays in customs clearance or other administrative matters. This is a very positive result when considering the situation of developing nations. From the questionnaire on the project period efficiency, the score is 4.41 (out of max. 5) meaning positive results by the absolute majority. Also this is a result matching with the above qualitative result.

③ Efficiency of the project implementation processes

The efficiency of the project implementation process can be assessed by observing the operational process of the project resources such as funding, manpower and land. In other words, we can assess the efficiency of the donor's funding operational process through interviews with KOICA and the efficiency of manpower and land operation through interviews with the implementing agency (PMC). Both

the interview and the questionnaire results showed that the project implementation process was very efficient. In answering the question of whether the respondents thought the resources were allocated efficiently, the score was 4.37 (out of max. 5) which signify an absolute majority positive response.

(3) Effectiveness

① Review of output goals

The project performance and output can be judged based on the PDM. The project result seen in the PDM is the supply of outstanding industrial manpower which was achieved by the graduates being extremely satisfied by the corporations. The output in the PDM is the practice facility, the educational equipment, invitation training and educational training program and the achievement of such output can be verified through the field study and document reviews. Especially the phenomena that the employment requests by corporations are increasing for the graduates of the Korea-Vietnam Industrial Technical School graduates can be interpreted as the achievement of the project performance. This is proved by the Korean small and medium company owners in Hanoi responding to interviews indicating that although they want to hire more graduates from the School, the students wish to go to Korea or enter large corporations.

Meanwhile for the project result and output achievement, questions asking whether there were improvements seen from the first project were included since the second project was done in line with the first project. The result of the questionnaire showed a score of project achievement of 4.36 (out of 5), output achievement of 4.35 (out of 5), and the first project improvement at 4.48 (out of 5). Therefore, the Korea-Vietnam second project result and output can be said as sufficient achievement of the project result.

② Effective implementation of the project

The subjects who played the most important role for the Korea-Vietnam technical School 2nd Phase Upgrading Project could be the specialists dispatched from Korea. They are the principle agent of the project execution, and their execution ability can be considered the execution ability of the project. As a consequence, the assessment on the execution of the project can be substituted with the assessment on them, and can be judged through interviews and questionnaires toward them. Actually, during the field study, many stakeholders from the recipient gave positive answers to the questions regarding the dispatch of the specialists. This trend was seen the same for the interviews with the parties concerned on the School and Nghệ An province people's committee, mentioning that they could learn Korean way of working and passion toward the project. For the questionnaire of the effectiveness, it showed a score of 4.55 (out of 5) which was very high. In conclusion, we can state that the Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project was carried out effectively.

③ Effective risk management in the project

The potential risks that might occur during the general project execution process were resolved through close cooperation between KOICA and the School. However, risks for the implementing agency were underprepared in some sense. In other words, administrative and systematic difficulties arising from the project progression process were resolved satisfactorily through reciprocal cooperation, but the financial risks such as inflation, exchange rates, and delivery delays were fallen on the implementing agency's shoulders.

The interview results of the donor and recipients were changed depending on their stances. The questionnaire of the risk management scored 4.09 from the perspective of the recipient, meaning that the project was very effectively managed. On the other hand, the supervisor of the implementing agency answered that

due to the insufficient financial risk management, unexpected increase in exchange rate and inflation were difficulties to avoid thereby being in the red. Therefore, it is necessary to provide an institutional device for the potential risk management and allocation of emergency funds in the future implementation process for the similar projects.

④ Effectiveness by beneficiary groups of the project

Although the direct beneficiaries of the Korea-Vietnam Industrial Technical School the 2nd Phase Upgrading Project are the School staffs, the enrolled students and graduates, the corporation employing graduates, high School students, and general industries are also included as the indirect beneficiaries. As a consequence, depending on the stances, the project effectiveness can be felt differently. The qualitative result from the interview shows that the level of satisfaction to the project is very high. Especially, it was found that the chances of obtaining employment opportunities or the possibilities to get employed in Korea increased. Also, the fact that the monthly income standard increased considerably thereby raised the income level of the residents in Nghệ An province is emphasized. Besides, the principal mentioned that the behaviors of the teenagers have improved. This indicates that the qualitative project performance is considerable.

The questionnaire survey was conducted by each group of project subject. For the graduates, the response to the question asking the usefulness of skills and knowledge taught in School when seeking job was 4.21. For graduates, the question that graduation of the School was the requirement for getting a good job was asked and the response was 4.17. However, the graduates' response was relatively low with the score of 3.57 to the question asking that the enrolled students would find good jobs in the future.

For the corporations employing the graduates, the question asking whether the graduates possess outstanding skills marked 4.11. To the question asking that

the graduates receive relatively higher wage than that of other graduates in other schools, the score was 4.05. But the companies which hire the graduates show 3.66, a comparatively low score. On the other hand, to the question of the graduates being the examples of all employees in a firm, the score was 3.66.

For the School staffs, the question that corporation representatives are participating in the education curriculum was asked and the response score was 4.97 (out of max. of 5). To the question that the School reflects the requirements of the industries, the answer was 4.25. For high School teachers, the question whether their students would have more opportunity of employment if they enters the Korea-Vietnam Industrial Technical School was asked and the response was 4.60 (out of max. of 5).

(4) Impacts

① Impacts on Students

From the interview, the students answered that they could take more practical courses because of the outputs of the project and have more opportunities to learn high technology thereby expecting to have more chance to get employed. In fact, there is a case that the students get employed more easily compared to that of other schools. This led to the creation of pride toward the School for the students. As a result of questionnaire survey, the response that employment opportunity increased after the completion of the project, was scored 4.45 (out of max. of 5), response that abilities increased was scored 4.42. The fact that the students have more pride in school was scored 4.18.

② Impacts on School

The basic project impacts on the School were the attainment of high reputation due to the creation of outstanding students and the cultivation of award winners

in various technical competitions. Moreover, the School received the highest ranking as a vocational School. These are impacts of the project and were verified through field study. The questionnaire results were very also positive. To be more specific, the question about the preference increase from the corporation side toward the School was asked the answer was 4.01. The response for the question asking the corporate preference increase in the School's graduates was 4.14. Meanwhile, the fact that the School has become the center of Industrial Technical School was scored 4.5. However, the response for the question that the School image improved was scored at a relatively low 4.4.

③ Impacts on local community

The basic impact of the Korea-Vietnam 2nd Phase Upgrading Project for the local society is the expansion of positive recognition toward the School and the basic economic and social aspects. In other words, the number of applicants increased and many teenagers were able to receive vocational education. Also, the employment of the graduates contributed in easing the poverty of the families, and it can be said that it provided economic development to the region. Moreover, in the interview of the principal and civil servants, before the establishment of the School, many teenagers loitered around the streets smoking and causing violence which caused social problems. After the School establishment, such problems dropped drastically. This was due to the School's education policy of strong on attitude and strict rules.

④ Impacts on both donor and recipient countries

From the macro perspective, we can assess the project impact to the donor and the recipient. In other words, from the perspective of the recipient, Vietnam could have affected in the supply of industrial manpower and development of similar projects. For Korea, the improvement of the image of the nation can be considered as the project's impact.

(5) Sustainability

① Sustainability of the project effect

For the School's 2nd Phase Upgrading Project, the sustainability of the project performance is judged based on the continuation of the project. As of present 2011, the project's tangible performance is well utilized such as the practice facility and equipment thereby saying that the effects are continuing. However for some educational equipment, since the number of students is increasing, they have no choice but to use the same equipment again and again. As a result, rapid wear and tear of the equipment especially for durable equipment and serious shortages of parts are causing problems. Since the corporations' new technology demands are changing rapidly, even the educational equipment provided by the second projects is already becoming obsolete. Besides this, overall performance is continuing to the present for the second project.

Meanwhile, for the question of whether the effects are being created continuously, the response was a score of 4.5. Since the support of the Korean facilities and equipment cannot be repeated continuously, a structured effort of the School is called for. Presently by the management of the Korean classes and certification testing, limited additional income is being created but by a more structured graduate management and their contribution, industrial academic collaboration to increase its independent income and to raise the sustainability by focusing on its major efforts are required.

② Effects on increasing employment of the graduates

In that the ultimate goal of the Korea-Vietnam Industrial Technical School 2nd Phase Upgrading Project is supplying industrial manpower, the increase in the graduates' employment can be a major element in sustainability assessment. From the various interview, regardless of the groups, all the respondents replied that they are satisfied with the quality of graduates. Especially the fact that the

employers are continuously expecting to hire the graduates is a testimony of the project's sustainability. The employment rate is being maintained at around 90% and for those not obtaining job, the reasons are mostly personal and not related to the School. Consequently this cannot be a reason to hinder the sustainability of the employment rate. The questionnaire result from the perspective of the students' employment, it is showing a very positive result for sustainability. For the corporations wishing to continue to hire graduates from this School, the score was 4.17 (out of max. of 5).

③ Sustainable support from local government

The central and provincial government's continuous support can be seen as being positive to the project's sustainability. However, based on the field study result, since Vietnam is a socialist nation, the School cannot receive preferential treatment but must receive an identical level of support as others do. Due to the fact that this School has been singled out as being a model School, it is being publicized as a success case nation-wide and is receiving consideration as an ideal School by the government. On the other hand, according to the questionnaire result from the government result, from the question whether the Vietnam's government at its provincial government would support the School continuously, the response scores were 4.26 and 4.83 respectively. (Out of max. of 5). This fact gives more weight on the higher sustainability of the School.

④ Appropriate management of facility and education equipment

At present the second project is seen to be contributing to the construction of the practice complex and education equipment. However, since the project was mainly focused on the site management of the building and the equipment, systematic maintenance and management such as durable expansion and management of major parts is somewhat insufficient. In other words, general maintenance and

management system was not introduced to deal with major spare parts. When problems arise, the only solution lies in the teachers themselves maintaining and repairing them. If there are problems that in-house repairs cannot be done, than individual requests to the dispatched Korean specialists are the other option they have.

⑤ Program for increasing competency of teachers

One of the major intangible effects of the second project was the ability improvement of the teachers. This can be the effects of the invitational training project and teacher's ability improvement program development. From the perspective of sustainability, appropriate measures are necessary to keep up the project, not left out as a singular-oriented project. At present, the School cannot develop independent program for capability improvement for the teachers and such programs cannot be readily found in Vietnam. However, it can be assumed that the teacher's capacity will be increased according to the questionnaire result for the question of whether teacher ability improvement educations are being executed with the response of 4.18. Also, after the conclusion of the 2nd Phase Upgrading Project and the elevation to the 3-year industrial technical college, the number of teachers with graduate degree increased sharply. Although irregular and small-sized invitational training program conducted for the teachers by KOICA, there were also expectations for participating in KOICA's invitational training in vocational education sector, which will help them to strengthen their capacity.

⑥ Strengthening the Industry-Academic Collaboration

One of the major reasons for the rise in employment for the second project graduates is the fact that the practical courses are focused on the needs of the corporations. Such method has increased the adjusting abilities of the students to the corporations. Therefore, active industry-academic collaborations are needed to develop the education program with the participation of the corporations. Originally

the refrigeration major was not included into the School curriculum, but due to the demands from the regions' electronic companies, it was newly created and practical courses meeting the corporations' demands were opened based on the industry-academic collaboration in 2010. The questionnaire result of the industry-academic collaboration was 4.24 which was very high due to the reflection of such connecting efforts.

(6) Cross-cutting Issues

① Discrimination by gender

In executing the second project, we could not find any criteria related to gender issue in planning, execution, and output or in any other stages. This was due to the fact that the gender issue was missed when project was planned. Since the majors are comprised mainly of machinery, automobile, electrical and others, these courses are mainly preferred by males and the ratio of females was relatively low. Therefore, there is a need to publicize its advantages to female students for recruitment. As a result of the questionnaire, for the question of whether the project discriminates against females, the response was 4.46.

① Discrimination of the minority and the handicapped

In the second project, we could not observe any discrimination against the minority or the handicapped or the socially disadvantaged. During the field survey, we could not see any facilities for the handicapped (lift facility, restroom for the handicapped, wheelchair usage space). This was analyzed by the fact that Vietnam does not have the systematic nor economic level to accommodate them. On the other hand, from the interview with the principal, we found out he went out of his way in trying to assist the poverty-level students and the Vietnamese minority student. Especially, for the neighboring poverty nation, Laos, to foster its future specialist technical manpower, the School has invited 20 full scholarship

students for Nghệ An province and they are attending the School in good standing. Following the result of the questionnaire, for the question that there are no discrimination against the socially disadvantaged (the handicapped, the economic-poverty level student, the minority and others), the response score was 4.5 which supports the abovementioned qualitative assessment.

② Environmental issues

In the second project, sectors where environmental issue could arise are the new construction of practice facility and educational equipment provision. Especially for the practice facility for automobile course, the paint facilities might cause environmental issues due to the waste water and the welding course could cause smoke which would pollute the air and cause fire. However upon inspecting the site, the paint facility was equipped with waste water processing facility and the welding course practice room was equipped with ventilation facility for air circulation which prevents contamination. The independent practice space was prepared so that the danger of fire spreading to other areas was prevented. Also, to prevent fire, proper installation of fire extinguishing facility was observed. As a result of the questionnaire, for the question that the project does not create environmental contamination, the response was 4.37.



■ 5. Limitations of Evaluation

Much change has occurred after the 2nd Phase Upgrading Project, many performances were achieved independently but we cannot clearly judge nor categorize whether they were results of the second project. Especially for the graduates' employment rate increase, the ability improvement of the teacher and independent effort performance along with the 2nd Phase Upgrading Project performance, it is

difficult to separate and assess these performances. Meanwhile, from the perspective of the donor nation, for those who participated in the project execution, since considerable timing has elapsed from the second project, the issue of remembering exactly is a problem. Moreover, it is not easy to locate the project participants.

To assess the performance result, it was necessary to survey simultaneously on the recipient and the donor nations, which makes the evaluation team difficult to conduct in-depth and varied survey. For the survey method, we used general questionnaire, individual and group interview, and field survey. However we could not overcome the basic limitations of such methods. Also, due to the geographical problems, indirect survey method was chosen through local specialists. As a consequence there leaves a possibility of selecting somewhat biased sample groups. In order to overcome these limitations, thorough interview and field surveys were executed. For the questionnaire survey, the survey sample for the civil servant and parents were too small and meaningful interpretations were difficult statistically.

The evaluation period from planning to results, it took 4 months (June 2001 to Sept. 2011). Such evaluation period was not enough in consideration of traveling back and forth between the two countries. Especially, the evaluation period overlapped with school vacations which made the field survey difficult. In other words, during the core evaluation period of July and August which were summer vacation months, we had to rely on the School's assistance for the survey activities and to survey only the students living around the School. This is a reason for biased result of our questionnaire. However based on the students' interview result, we saw no results for any particular trend for hospitality or other biased form. Due to the fact that the students replied honestly, although we could not calculate exactly the sample deviation, we saw no reasons to suspect the quality of the survey.

As initially planned, we had to cancel the second visit due to time and budget constraints so there were some limitations to the document sufficiency and verification elements. In this regard, in executing future similar evaluation, we saw a need to make more thorough evaluation model.



Analyzing Key Success Factors and Policy Implications



Analyzing Key Success Factors and Policy Implications

Basically, any ODA projects can be evaluated from the viewpoint of whether they contribute to the realization of the millennium development goals (MDGs). From this perspective, the 2nd Phase Upgrading Project of the Korea-Vietnam Industrial Technical School can be evaluated as a very successful project. Especially, the extraordinary activeness of the School staffs and teachers and high satisfaction shown during the in-depth interviews are enough to demonstrate the success of the project. All results of surveys that we performed during our field research also show very high levels of satisfaction about the outcomes of the 2nd phase projects as well.

In this sense, it is necessary to analyze the critical success factors in order to repeat similar successful ODA projects not only in Vietnam but in other developing countries. In this report, we have classified the critical success factors in three categories, namely, human resource factor, the institutional factors, and others.



■ 1. Human Resource Factors

■ Extraordinarily high passion of teachers and managers of the School

The success of the 2nd Phase Upgrading Project can be largely attributed to the Principal. When he was promoted as the principal, he implemented various development strategies. He has also shown good capabilities as a school manager. He felt a strong need to complement the practice facilities and equipment in

order to strengthen the educational capability of the School so he actively solicited the provincial government for assistance. To that end, the provincial government requested further assistance to Korea, the originator of the project. During the evaluation period, the project stakeholders from the donor and recipient mentioned the efforts put forth by the principal during the project process.

Moreover, the teachers who participated in the project and the Korean invitational training played vital roles. They fully utilized the knowledge and technology learned in Korea and passed them along to others and acted to use appropriately the practice facility and educational equipment. Therefore, it can be said that the teachers also contributed to raising the value of the performance result. The teachers also actively publicize the project internally and externally in a positive manner.

■ High expertise of the project participants

From the perspective of the donor country, the participants were consisted of the executing organization, KOICA, and the project implementing agencies including the Korea Chamber of Commerce, Gwangju Manpower Development Center, MNE General Architect, and Darenbotech. Before the 2nd phase project, KOICA prepared the assistance strategy plans. Also, vocational training experts from Korea were enthusiastic in performing their jobs and maintained close communications with their Vietnamese counterparts even after the completion of the project, which seems to be another factor in improving the effectiveness of the project. The staffs of KOICA's local office in Vietnam, who played pivotal roles in the project implementation process, were also very enthusiastic. Furthermore, given that the project budget may fall short for external financial factors such as fluctuation of foreign exchange rate over the duration of project, we should make arrangements for sufficient contingency make-up plan for unexpected increase of the cost, or make necessary arrangements (swap, option or hedging transaction) to address unexpected changes in external environment.

■ Active attitude of the public officials of the recipient country

Among the human factors of the recipient country, the People's Committee of the Nghệ An Province played a decisive role in ensuring the success of the project. Although Vietnam is a socialist country focusing on equality and common goods, attention and care shown by the Nghệ An Provincial government to the Korea-Vietnam Industrial Technical School seemed to be far greater in comparison with other schools.



■ 2. Institutional Factors

■ Matching the ODA demands and supply of the recipient and donor

The 2nd phase Upgrading Project of the Korea-Vietnam Industrial Technical School was implemented when the international cooperation strategy of the donor country precisely matched the demands of the recipient country. The successful operation of the Korea-Vietnam Industrial Technical School at the 1st stage was enough to justify the confidence in the needs for the 2nd phase project. Also the 2nd phase Upgrading Project for the same recipient organization, which was the first case in Korea's ODA history was a follow-up project after the 1st phase.

In the meantime, from the perspective of recipient country, Vietnam finds the successful operation of the Korea-Vietnam Industrial Technical School sponsored by Korea to be critical to its national development and supply of technical resources for industries. The government of Vietnam has promoted the Korea-Vietnam Industrial Technical School as the best case of vocational training institution in the nation. In addition, concentrating the training programs and events on the Korea-Vietnam Industrial Technical School in relation to the Korean language education program in the central and northern regions of Vietnam contributed significantly to the positive evaluation of the Phase 2 program.

■ Job availability of the graduates in the donor country

Graduates from the Korea-Vietnam Industrial Technical School are given opportunities to work in Korea upon passing the Korean language proficiency test. If they find jobs in Korea, they may earn 3 to 4 times, or even 5 times more than they make in Vietnam and be able to send about US\$1,000 on average to their parents. In comparison, graduates from the Germany-Vietnam School in the neighborhood, as they are prevented completely from finding jobs in Germany even after graduation, have to study Korean language on a separate track or seek employment in foreign countries via other routes.

■ Training and education opportunities open to the School teachers

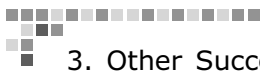
In the early days of the aid program, some teachers of the Korea-Vietnam Industrial Technical School received technical training in Korea upon invitation. Subsequently, thanks to the care by KOICA's local office in Vietnam, teachers of the Korea-Vietnam Industrial Technical School are allowed to join invitational training programs relating to vocational training to further improve their skills continually, which means that the teachers of the Korea-Vietnam Industrial Technical School are entitled to have career training opportunities in Korea, although the scale of such training programs may not be as large as they might want. In the case of the Germany-Vietnam School in the neighborhood, the School has no subsequent relationship with Germany once the official aid from the country was ceased, having to manage with old teaching infrastructure and little skill development training opportunities for teachers. Accordingly, when we conducted an interview, the principal of the Germany-Vietnam School even asked us to offer training opportunities for the teachers of their School also.

■ Supporting not just hardware, but software and know-how

Another success factor of the Korea-Vietnam Industrial Technical School is found not only in the supporting simply the hardware but also for software combining the program operating know-how, School management techniques, and Korean way of working, etc. In case of the Korea-Vietnam Industrial Technical School, software support was provided very effectively, and as described in the above, continued skill development training program has been provided to teachers at least in part, and other creative initiatives are developed for the School to push for its own exchange programs with provincial universities of Korea such as Youngsan University in South Kyungsang Province in Korea, which significantly improved the sustainability of the project.

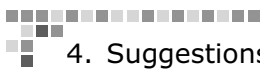
■ Forming and maintaining informal human networks between Korean experts and local Vietnamese teachers

As described in the above, enthusiastic efforts of the faculty members, the self-initiated efforts of Korean staffs and formation of strong human network among them apparently contributed to the success of the 2nd phase Upgrading Project for the Korea-Vietnam Industrial Technical School. Although their network is an informal one based on personal relationships, it works even until today. If a similar vocational training project is implemented in the future, it will be necessary to turn the informal human network into a formal one, and institutionalize it in a way to improve the sustainability of the project outcomes.



3. Other Success Factors

As the 2nd phase project for the Korea-Vietnam Industrial Technical School concerned a School founded by the Korean government in nature, it was bound to be implemented by KOICA. In other words, as the School was established by Korea and the School name contained 'Korea', the School must have had no other entity but Korea to request external support for its development. Such circumstances turned out to be conducive to strengthening the continuity or professionalism of the program and lead the 2nd phase project to a successful end. However, it still assumes sufficient satisfaction of the government of Vietnam with the outcomes of the Phase 1 of the program. Furthermore, jobs attained and businesses created by the graduates from Korea-Vietnam Industrial Technical School are brilliant outcomes and provide significant cases for assessment of the quality of education available in the School. However, the graduates who find jobs are not yet appointed to senior positions, as they are not yet advanced in their career. Cases of graduates who find jobs or start up business are founded.



4. Suggestions for Further Development of the Korea-Vietnam Industrial Technical School

- Drawing a blueprints and a detailed roadmap for implantation for the future of the School

The biggest challenge faced to the Korea-Vietnam Industrial Technical School now is the lack of comprehensive and systematic School development plan and roadmaps to the future. The Korean government contributed to establishing the School and strengthening its educational capacity by extending aid twice. However, it was found that the School was having a lot of difficulties internally, with

increase in the number of students and diversification of demands from industrial community. The School maintains prestigious standing firmly in Vietnam as a vocational training School, but, it is still questionable whether the School is supplying manpower armed with skills demanded by the industrial community of Vietnam. Furthermore, given that many graduates are being employed by businesses in advanced countries such as Korea and Taiwan, the operation and education program of the School needs to be updated, with focus on nurturing advanced technical talents. It is essential to develop a mid to long-term development plan addressing such issues for Korea-Vietnam Industrial Technical School.

■ Specify programs to strengthening financial capability of the School

The first and foremost priority is to develop a strategy for financial independence. As a model case in Vietnam, Korea-Vietnam Industrial Technical School may be included in a list of high-priority support recipients by the government, but, the School cannot be entitled to have specific financial privilege in principle. Therefore, Korea-Vietnam Industrial Technical School needs to develop a sustainable and independent funding strategy, which may include funding from business community in relation to expansion of academic-industrial cooperation, sponsorship from systematic network of its graduates and self-sustainable education program of its own.

■ Need to develop technical upgrading program for students and effective management programs for the graduates

Systematic graduate management system is required. Korea-Vietnam Industrial Technical School does not manage its graduates systematically at present. Graduates may become critical channels through which the School can access the latest technical information required by industries and reflect it on its curriculum as well as information on job openings available in the employers of the graduates. Therefore, the School should arrange graduates to get together among themselves,

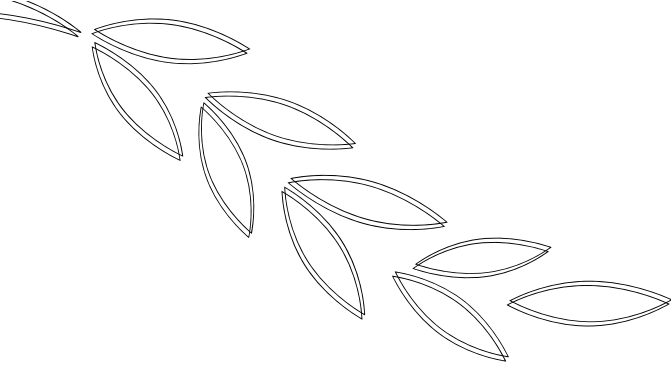
encourage them to visit the School, launch special lectures on employment involving graduates and establish scholarship program funded by graduates so that they can find opportunities to visit the School. Graduate networks and joint programs launched by several universities in Korea should be benchmarked so that the graduates can establish a good tradition of taking care of their juniors.

■ Maintaining a good quality training facility and equipment

Korea-Vietnam Industrial Technical School needs to improve in many aspects if it is to develop further. The School has been provided with sufficient quantity of training facilities and equipment. However, rapidly increasing number of students is resulting in shortage of such facilities and equipment. Training equipment available in the School now is in significant shortage in comparison with the number of students, which leads many students to share a single piece of equipment. Therefore, training time allowed for individual student is absolutely inadequate and use of equipment over extended period of time sometimes results in equipment failure. Continued efforts for financial independence are essential for maintenance and addition of training equipment as well. Furthermore, the School needs to secure required equipment or facility early on by expanding exchange program with engineering colleges in Korea or Korean businesses, local municipalities, and civic groups, etc. Notably, exchange program with polytechnic universities in Korea needs to be promoted actively, as it can open wider window of opportunities for exposure to advanced technologies at relatively affordable costs.

In conclusion, as discussed in the above, success factors for a model of Korean-type vocational training School include: 1) consistency between the demands of recipient country and the supporting strategy of donor country; 2) enthusiasm and dedication of stakeholders and staffs in both countries and development of potential demands by launching strategic promotion initiatives early on; 3) formation of human network over long time, 4) availability of job opportunities for graduates in donor country; 4) availability of career development training opportunities for

teachers; 5) accreditation as a Korean language education institution; 6) assistance with independent survival strategy for mid to long-term sustainability; and 7) combination of hardware support in terms of building, facility or equipment and software support in terms of way of working, personal relationship and human network, and so on. In addition, as described in the case of Korea-Vietnam Industrial Technical School, graduate management system designed to manage graduates systematically as assets for mid and long-term development of the School needs to be put in place.



Conclusion



The goal of the 2nd Phase Upgrading Project for the Korea-Vietnam Industrial Technical School was to strengthen the educational capacity, and consists of expansion of training facilities, provision of the latest educational equipment, invitational trainings for the School staff, and etc. The overall time period was two years with the total funding size as US \$2.3 million. The Vietnamese government asked for the 2nd Phase Upgrading Project not only because it needed the funding to elevate the School as a vocational college, but also because the first project of Korean government through which the School was established was successful. In spite of the success of the first project, after six years of its establishment, the issues such as lack of training facilities, deterioration of equipment, lack of budget needed to develop the School, and the need to further train the School staffs and teachers. These were the basic reasons for the 2nd Phase Upgrading Project.

The project goals of the Upgrading Project were managed with PDM, and evaluation of achievements was conducted as the project was over. Most of the evaluation categories received A-class evaluation and the total average score for the project was 93. However, there was the need to specify more on the goals of the 2nd Phase Upgrading Project with validity. That is, the connection between the project details and the goals was needed with causality between the project goals and the evaluation standards. When evaluated with the six principles of OECD DAC (Appropriateness, Efficiency, Effectiveness, Impacts, Sustainability, and Cross-cutting Issues), the project yielded generally satisfying results.

The direct short-term achievements of the 2nd Phase Upgrading Project of Korea-Vietnam Industrial Technical School include the increase of training opportunities

for the students, expansion of the School, elevation to vocational college, assignment as a superior vocational School, and improvement the national image of Korea. The indirect long-term effects of these achievements include increase of the employment rate of the graduates, increase of the opportunities for vocational training for the teenagers of Nghệ An Province, increase of the income of locals, supply of high-quality technical human resources in Vietnam, and improvement of development assistance partnership between Korea and Vietnam.

The evaluation team came to the following conclusions through the evaluation of the 2nd Phase Upgrading Project of Korea-Vietnam Industrial Technical School:

First, the upgrade project is a model case in which the need for assistance of the recipient country and the aid strategy of the donor country met properly. Second, the core success factor of the Upgrading Project was the passion and efforts of the participants. Third, though the 2nd Phase Upgrading Project was focusing on vocational trainings including construction of facilities, provision of equipments, and development of educational programs, during the actual process of the project several activities were conducted in order to increase the achievement. Fourth, the human network among the participants of the project from the donor and the recipient country exhibited a synergic effect for the Upgrading Project.

However, the 2nd Phase Upgrading Project had several problems in its financial aspect. Especially the forecast for the project budget was not exact, and the lack of the ability to cope with unexpected changes in exchange rate or interest rates was pointed out often as a problem. It is unavoidable to finish a project within the predetermined budget as ODA is a national political project, yet the project implementing agency might end up with deficiency. Therefore considering that external economic factors such as changes in exchange rate might not result in deficit of budget, and make a chance to consider a system to prepare sufficient reserve fund or countermeasures of swap, option, hedge to cope sudden external changes.

Lastly, as the Korea-Vietnam Industrial Technical School naturally has an intimate relationship with Korea, it would be efficient to develop as a Korean-styled

vocational institution. The following are the suggestions to achieve this.

Task 1. Development of master plan and road map for the School.

Task 2. Establishment of financial self-sustenance plan.

Task 3. Development of capacity strengthening programs for students and teachers.

Task 4. Systemic management of the graduates.

Task 5. Expansion of facilities for practice and change of outdated equipment.

Task 6. Exchange with Korean vocational institutions and polytechnic colleges.

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