

Evaluation Report



Vocational and Technical -Training Project in the Republic of the Marshall Islands

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Abbreviations

ADB	Asia Development Bank
CMI	College of the Marshall Islands
KIT	Kiribati Institution of Technology
MoPW	Ministry of Public Works, Republic of the Marshall Islands
MoFA	Ministry of Foreign Affairs, Republic of the Marshall Islands
NTD	New Taiwan dollars
NYUST	National Yunlin University of Science and Technology
RMI	Republic of the Marshall Islands
ROC	Republic of China (Taiwan)
TVET	Technical and vocational education training
TaiwanICDF	International Cooperation and Development Fund
USD	United States dollars

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Basic Data

Project Name	Vocational and Technical Training Project in the Republic of the Marshall Islands
Partner Country	Republic of the Marshall Islands
Executing & Implementing Agencies	National Training Committee (NTC) Ministry of Public Works (MoPW)

Budget		
Budget (USD:NTD, 1:32)	NTD 23,190,000	USD 724,687.5
Actual	NTD 22,490,239	USD 702,820
Personnel costs	NTD 12,180,000	USD 380,625
Administrative costs	NTD 1,726,000	USD 53,937.5
Facilities and equipment	NTD 8,584,000	USD 268,250

Key Dates	
Project Implementation	From Dec. 2009 to June 2012
Technical and Vocational Training Cycle 1	From July 21, 2010 to June 15, 2011
Technical and Vocational Training Cycle 2	From Feb. 8, 2011 to July 20, 2011
Technical and Vocational Training Cycle 3	From August 2011 to June 2011
Completion Report issue date	June 2012

Executive Summary

This evaluation report is dedicated to evaluating the TVET project in the Republic of the Marshall Islands. This project was initiated and funded by the TaiwanICDF; the executing agency was the NTC and the implementing agency was the MoPW, Marshall Islands. The CMI and the Embassy of the Republic of China (Taiwan) were project partners.

The Project

According to its objectives, the project aimed to increase the number of local workers skilled in automotive maintenance, electrics and plumbing. The establishment of national skill standards and a certification system were also parts of the project, as it was thought that establishing such standards and certification could help the RMI to resolve problems involving shortages of skilled workers and a high unemployment rate.

Overall Assessment

In this evaluation report, the project is ranked as moderately satisfactory; the total aggregate project performance index is 1.55. Little evidence was found that project interventions led to the intended outcome. For example, the project design asserted that TVET trainees would be able to compete in the international job market due to gaining qualified skills. This assumed that trainees would be eligible to benefit from opportunities created by the expansion of the U.S. military base in Guam. However, according to evaluation survey results, only 15 percent of trainees have had overseas work experience, and most of these trainees had found jobs in Hawaii or the U.S. mainland.

The effectiveness of this project is satisfactory. There was some evidence to indicate that the project successfully promoted trainees' awareness regarding personal skills and career development, but also that training subjects did not reflect the RMI's economic and industrial demands. A post-evaluation report, *The Marshall Islands: Skills Training and Vocational Education Project*, issued by the ADB's Independent Evaluation Department, argued that entrepreneurs and business owners have tended to hire foreigners if they need experienced or skilled workers. This report also suggested that because of a shortage of local skilled workers, the private sector has had to hire skilled workers from other countries such as the Philippines or other South Pacific countries. This report reviewed the industrial structure of the RMI and the distribution of foreign workers in the RMI's industries. It found that the construction, fishery, real estate and transportation sectors recruited the most foreign workers compared to the national average. The project did not focus on the right industries, and so was unable to propose effective solutions to meet unemployed Marshallese and entrepreneurs' demands. For

brief research regarding foreign workers and unemployment issues in the RMI conducted as part of this evaluation report, please refer to Appendix 3.

The efficiency of this project is satisfactory. The performance of vocational training teachers was well acknowledged by trainees and partners; indeed, their performance addressed shortcomings in project management and design. Apart from vocational training teachers' performance, other project details such as cost-effectiveness, management efficiency and the quality of procurement and consultancy services were less efficient.

The sustainability of the project is moderately satisfactory. Of the several issues involved, the most critical one was whether the executing agency was willing and able to continue the project. Due to a lack of financial support, the NTC declined to continue with the training program; at the same time, the CMI also faced difficulty when it attempted to convert the project's informal TVET program into a formal vocational education curriculum.

Key Lessons and Suggestions

Several lessons were learned from the project. Firstly, regarding the identification of stakeholders and target groups, in this case, stakeholders and target group should have been unemployed Marshallese people and public and private sector employers. The project did not identify and build close relationships with the right target group and stakeholders, and hence only focused on overseas job opportunities while seeming to overlook the RMI's own industries and local business demands.

Contractor and consultant management also affected project effectiveness and efficiency, not only in terms of consultants who were invited to join in the appraisal mission for the project, but also with regard to the contractor, NYUST, which provided design and implementation services for the training program. NYUST's performance did not meet expectations, although its performance record had seemed to indicate that it was suitably qualified. The findings of this evaluation report would suggest that if a project designer does not clearly understand the target group's background, and/or if the project design requires contractors to provide services by working very closely with the local society, then it is important to consider whether bidders who compete for project procurement have the ability to adopt the target group's culture and environment. This could be one of the conditions made in reviewing contractors' and consultants' qualifications.

I. Introduction

1. Evaluation Purpose and Process

This Evaluation Report is dedicated to evaluating the performance of the TVET training project in the RMI. To validate the effectiveness of this development project, it is necessary to review the outcome of the project in terms of trainee employability and improvements in trainees' livelihoods. Based on an understanding of the project performance, lessons learned and suggestions are then proposed in order to provide useful suggestions to the project's stakeholders and the TaiwanICDF.

Evaluation questions, designed in accordance with the results of front-end analysis, are presented together with a description of evaluation methods in an Evaluation Design Matrix (Appendix 2). Regarding evaluation methodology, the design of the evaluation survey was based on a quantitative research framework. Since trainees' personal profiles were not sufficient, the project's executing agency, the NTC, kindly assisted the evaluation team by providing trainees' employment profiles, and also scheduled interviews prior to the team's arrival in the RMI. Furthermore, in order to contact more trainees, the evaluation team called for a reunion at the end of its field visit, with an additional 22 trainees who had not been interviewed attending to join in the survey. In total, surveys of 60 trainees were successfully completed as part of field evaluations. Thirty-eight trainees had been contacted by the NTC and the other trainees took part in the survey at the reunion event.

The survey results were used to review project performance, with the evaluation team validating whether survey results were supported by evaluation questions. The evaluation team also assessed project performance in accordance with project performance criteria, and performance was then rated by the evaluation team based on survey results. For survey results please refer to Appendix 2; for the survey questionnaire design, please refer to Appendix 4.

2. Expected Results

A retrofitted theory of change of the project is shown in Table 1. When the evaluation team attempted to retrofit the results-chain of the project, some difficulties arose because the definition of the intended outcome had been changed over time. Different definitions for the project's intended outcome had been given during the project's preparation, implementation and completion stages. In order to assess whether the project's intended outcome had been achieved, the evaluation team identified these different definitions and proposed a retrofitted results chain in order to precisely check and review the causality between project outputs and their intended outcome. The retrofitted project outcome was defined in three levels: the first level was the upgrading of personal skills, the second level was employability and the third

level was improvement to livelihoods.

Table 1. Retrofitted Theory of Change

Inputs	Activities	Outputs	Outcome
Resources used to invest in the project.	Activities initiated by the project in order to produce designated outputs.	Products or services contributed by the project in order to achieve intended outcome.	Outcome could be observed when the project completed.
<ul style="list-style-type: none"> • USD 724,687 • TVET consultants and specialists • TVET training teachers • Project administrators, on-site project administration manager 	<ul style="list-style-type: none"> ▪ Three cycles of TVET training program of automotive maintenance, plumbing and electrics ▪ Technician Certification System, including regulations for technician certification and licensing 	<ul style="list-style-type: none"> ▪ 139 trainees awarded technician certification issued by the project ▪ In total, 3,780 training hours ▪ In total, 1,620 lecture hours 	<ul style="list-style-type: none"> ▪ Project trainees eligible to compete for job opportunities created by U.S. military expansion project in Guam ▪ Project trainees eligible to compete in local labor market ▪ Skills and knowledge learned have helped to improve livelihoods of project trainees

II. Design and Implementation

1. Rationale

The intended outcome of the project was to assist the RMI to address unemployment. The project also aimed to increase the number of skilled workers in the construction and automotive maintenance industries. According to the project design, the intervention strategy would be to establish an RMI technician certification system, thereby establishing national skills qualifications and certification. The project would also make this intervention because entrepreneurs and business owners were unable to find enough qualified, skilled workers in the RMI, and thus were recruiting foreign workers to substitute for the local labor force. This was believed to be one of the root causes of high unemployment in the RMI. The project intended to nurture a high-quality labor force so that entrepreneurs could then turn to recruiting Marshallese people. The project also aimed to assist in building RMI partners' capacity in the design and implementation of TVET programs.

The TaiwanICDF was not the first development agency to conduct a TVET project in the RMI. The ADB also conducted a similar project in the RMI from 2005 to 2010. According to the project performance evaluation report prepared by the ADB's Independent Evaluation Department¹, that project had strongly emphasized the importance of a technician certification system in the RMI. The ADB also conducted other, similar interventions in the RMI² such as training programs.

The intervention logic of the TaiwanICDF and the ADB projects was similar. Both agencies intended to upgrade Marshallese vocational skills with the expectation of directly improving people's employability. Another reason cited by the projects was that some Marshallese people with professional skills had emigrated to the U.S. in order to pursue better employment opportunities and remuneration. By a similar logic, the project assumed that project trainees would be able to find work in Guam because the U.S. government had declared a project to expand its military base in Guam. It was thought that the expansion of the base would provide considerable job opportunities, especially for the construction industry, and would offer opportunities for Marshallese people if they had electrical, plumbing or automotive maintenance skills.

2. Formulation

Prior to the RMI TVET project, the TaiwanICDF had been preparing to conduct a TVET project in Kiribati; however, due to policy changes made by Kiribati stakeholders, the

¹ ADB Independent Evaluation Department, 2012, Performance Evaluation Report, The Marshall Islands: Skills Training and Vocational Education Project.

² ADB, 2006, Project Completion Report, The Marshall Islands: Skills Training and Vocational Education Project.

TaiwanICDF decided to cancel and relocate the project's budget and resources to the RMI.

When the Kiribati TVET project was cancelled, alternative arrangements were made in a fairly short time. From November 2009 to February 2010, the TaiwanICDF and MoFA discussed how to deal with the consequences of project cancellation, including the nomination of an alternative partner country for the project. The TaiwanICDF dispatched an appraisal mission to the RMI in November 2009 and issued an appraisal report in January 2010.

The appraisal report written by the appraisal mission proposed a pioneer vocational training project for the RMI. The objectives and design of the project were the same as for the Kiribati TVET project. The vocational training subjects decided upon for the RMI TVET project were electrics, plumbing and automotive maintenance. Electrics and plumbing were combined to be part of one training program, with automotive maintenance as the other. The training level for both programs was set as "entry level," meaning that prospective trainees would have little experience and knowledge in these subjects. The curriculum design was based on Taiwanese TVET systems and standards, as part of which all trainees would be expected to be able to undertake the skills and knowledge training provided to them. However, in reality, some trainees' literacy and basic mathematical knowledge proved to be insufficient to understand the training curricula. This problem affected teachers, who were forced to adjust curricula and training instruction methods³.

Due to the lack of a feasibility study, the project design did not fully match RMI entrepreneurs' demands, despite the fact that it would be a reasonable expectation that TVET training would have met the demands of local businesses and industry for human resources. This evaluation report provides an independent item of research into RMI employment and industry in order to understand the root causes of adult unemployment; for the detailed report, please refer to Appendix 3.

A study of foreign labor growth and distribution in RMI conducted for this report suggested that the unemployment issue, to some extent, is related to an increase in foreign workers. GDP growth in the RMI has not been reflected in any improvement in unemployment because the total unemployment rate in the RMI remained steady at a time when both GDP and the total number of foreign workers rose. This indicates that the private sector prefers to hire foreigners rather than local people. However, the unemployment issue cannot be solely blamed on RMI employers. In reality, such companies have difficulty finding skilled workers in the RMI despite the presence of two technical and vocational colleges in Majuro.

³ Supervision Report prepared by Central Vocational Training Center; Dec 8, 2010.

Other factors constraining employers and the government are that businesses in the RMI are small and operate on a small scale, and that the types and numbers of skilled workers are very different from company to company. This means that policy planners or TVET agencies must coordinate with one another well if they are to meet real demands as closely as possible.

3. Costs, Financing and Implementation Arrangements

The total budget directly contributed to this project was NTD 22,490,239, approximately equivalent to USD 702,820. Looking at the project's cost structure, the contract awarded to external organizations in 2010 was the highest cost, and the second highest was compensation paid to the project's employees. Comparing the cost structure of 2010 and 2011, compensation costs were nil in 2010 but jumped to USD 237,756 in 2011.

Table 2. Cost structure for the RMI TVET project (USD 1 to NTD 32)

Item	2010	2011
	Budget (USD)	Budget (USD)
Compensation	—	237,756
Administration fees	1,059	37,709
Travel expenses	27,627	16,391
Contract(s) awarded to external parties	260,029	122,249
Subtotals	288,715	414,105
Total		702,820

These differences in the cost structure reflect the fact that the TaiwanICDF changed its policy regarding the implementation of this project mid-term. In 2010, the project outsourced equipment procurement and training services; thus, the contract fee is higher than in the other project implementation year. Since the contractor's performance had not and could not meet expectations, in 2011 the TaiwanICDF decided to take over training and project administrative services.

These changes made by the TaiwanICDF, to some degree, were effective in solving problems such as unqualified TVET teachers and communication problems between partners. Nevertheless, the project's cost structure was subsequently even higher than if the project had remained outsourced to the contractor, with the budget in 2011 higher than 2010 by about USD 125,390. Another fact that should be taken into account is that training equipment was procured by contractors in 2010; thus, the total project cost in 2011 should be lower than for 2010.

Table 3. Average cost per trainee, ADB TVET project for RMI

Name of Project	Project Cost (USD)	Number of Trainees	Cost per Trainee (USD)
Basic construction skills	52,000	10	5,200
Boatbuilding, carpentry, and fiberglass skills development (six-month WAM project)	50,000	24	2,083
Basic construction skills extension in Merit	46,140	30	1,538

Table 3 shows the average cost per trainee for the ADB's TVET project in the RMI. Training costs per trainee ranged from USD 1,538 to USD 5,200, with the variation in such costs depending on the type(s) of skill being taught and learned. The average cost per trainee for the TaiwanICDF project was USD 4,654. This figure is slightly lower than the cost of basic construction skills training conducted by the ADB's project, but much higher than the ADB project's other skills training programs.

4. Procurement

Many problems arose in relation to procurement-related aspects of the project. Firstly, there was a disparity between the contractor's performance during the project and the record of achievements that it had presented when competing in the project procurement and bidding process. NYUST, the contractor responsible for providing training services for the project, may have had abundant knowledge and experience in providing technical and vocational education, but nevertheless performed poorly when conducting the project's training programs. Secondly, there was a gap in expectations as to the project's intended outcomes, and thus the contractor was not able to coordinate project management, which affected the efficiency of the project.

The cancellation of the Kiribati TVET project affected procurement policy and arrangements for the RMI TVET project. With the TaiwanICDF having little experience in implementing TVET projects, the organization opted to continue to outsource the project's training programs to NYUST. However, training equipment had already been procured in accordance with Kiribati stakeholders' requirements. This created conflict between the TaiwanICDF and NYUST; for example, teachers assigned to initiate the project have said that they spent much time and resources fixing equipment that did not meet RMI specifications. In addition, several other issues, such as disagreements over contract compliance and unqualified teachers, downgraded project performance.

5. Consultancy

The cancellation of the Kiribati TVET project affected project design and implementation. Several such issues should be noted. Firstly, in terms of the efficiency of consultancy services, considering that the Kiribati TVET project was cancelled and that the TaiwanICDF decided to relocate project resources to the RMI, the question arises as to why consultants who joined the appraisal mission failed to raise several essential differences between Kiribati and the RMI in respect to the structure of industry and the labor market situation. Although the original ideas of the project design had come from the Kiribati TVET project, the project should have been adjusted in accordance with RMI specifications. The reality was that consultants who were invited to join the appraisal mission failed to raise the fact that training subjects and curricula would have to be redesigned or adjusted in order to fit circumstances in the RMI.

6. Outputs

The project's main output was the TVET training program. This was divided into two programs by subject, namely automotive maintenance, and electrics and plumbing. Three cycles of each of these programs was conducted, with each subject comprising 900 training hours, including lectures and practical training. 151 trainees joined the training program, 139 of whom successfully passed their exams and obtained technician certification.

III. Performance Assessment

1. Overall Assessment

The project's total performance is ranked as moderately satisfactory. This ranking indicates that the project was unable to achieve its intended outcome, and that little evidence was found to support causality between project outputs and outcome.

The survey results indicated that only 15% of trainees have had overseas work experience, and that trainees' employment rate was only slightly higher, by 5.1%, than the RMI's total employment rate. Both of these figures suggest that the project's intervention had little effect in resolving unemployment problems in the RMI. Other reasons for the failure of this intervention were the failure to identify stakeholders and target groups, and the fact that project preparation was too short to formulate effective intervention logic, which made it impossible to conduct a comprehensive study of the root cause(s) of unemployment in the RMI. At the same time, contractors' performance during the project also degraded the quality of its outputs.

Although the interventions made by the project were not as relevant to the RMI's actual demands as they could have been, the project did still engage with stakeholders and trainees'

demands during the implementation stage. Some alternative solutions were adopted, for example when the project came under the implementation of the TaiwanICDF rather than the contractor, and also through the recruitment of retired TVET teachers. Survey results show that over 80% of trainees were satisfied with training quality, and that they also agreed that the skills and knowledge they learned from the project were practical and useful. Some trainees have failed to find work as automotive maintenance, but have found part-time jobs.

Regarding project sustainability, since the project did not achieve its intended outcome and since the executing agency has lacked financial support, training has been suspended since the TaiwanICDF withdrew its resources from the project. However, equipment and training materials have been useful in supporting vocational education needs, and the NTC and the CMI are looking for alternative options for this project.

2. Relevance

The project scores 1.41 for relevance, which means it was moderately satisfactory. Intervention logic, the consistency of the project and formulation quality were the sub-criteria used to review project relevance.

The intervention logic demonstrated by this project is moderately satisfactory. Some research papers and lessons learned were adopted and integrated into the project design⁴. Although the intervention proposed by the project seemed to be reasonable because other development partners had also conducted similar projects in the RMI, curriculum design and the selection of subjects would seem to have been less relevant to the requirements of RMI industries.

The causality between outputs and outcome is weak: Survey results showed that only 38% of trainees agreed that they had acquired a new job because of the project. Figures show little difference in employment relative to the total employment rate of the RMI: The employment rate⁵ of project trainees is 86.2% and the employment of the population of the RMI is 81.1%⁶.

⁴ The ADB RMI TVET project completion report suggested that a quality training program and certification system would be consistent with the RMI's national development priorities. This shows that other development partners' project concepts were reviewed as part of this project and that an attempt was made to incorporate related concepts into its intervention logic.

⁵ According the ADB's definition of formal employment, both full-time and part-time employment is formal employment. The ILO and UNSECO state that informal employment can include (a) working for wages or salaries, (b) running one's own enterprise, with or without hired labor, (c) working without pay within the family unit. This report counts full-time, part-time and self-employment as formal employment.

⁶ ADB IED, 2012, the Marshall Islands: Skills Training and Vocational Education Project, ADB.

Table 6. Employment rate dividend by occupation types

Item	Full-time	Self-employed	Unemployed	Part-time	Total
Employment status	44	1	8	5	58
By percentage	75.86%	1.72%	13.79%	8.63%	100%

(Noted that 2 trainees did not answer questions of occupation status.)

Stakeholder involvement in project design and formulation was not sufficient, which made intervention logic weak in responding to the demands of target groups; for instance, according to the appraisal report, the NTC and the CMI were invited to give comments on TVET curriculum design, but it is not clear whether the NTC and/or the CMI agreed that automotive maintenance, electrics and plumbing were priorities for human resources development in the RMI.

Regarding the consistency of the project, there was little consistency in the results chain. A review of the project's intended outcome indicates that different definitions of the project outcome were given in the project plan, supervision report and completion report. Overall, the intended outcome set by the project was to assist trainees to acquire jobs either domestically or overseas. To validate the achievement of the outcome, the evaluation survey also inquired as to the development of trainees' careers following training.

The survey results show a gap between trainees' expectations of the project and the reality of the situation after they finished training. Some 67% of trainees agreed that the reputation of the project had been helpful if they wanted to find a job overseas, while 7% of trainees could not make a judgment and 4% did not agree. Of the percentage of trainees who looked for work overseas, 61% said that they had not found an opportunity to work overseas, 24% did not respond and only 15% said that they had ever or were currently working overseas. As to the country or region chosen by trainees who had had overseas work experiences, 7% of trainees said Hawaii, 6% said another country/region and only 2% of trainees had worked in Guam, while 85% did not respond. As to occupational status, 50% of trainees were working as skilled workers, 25% were technicians and 25% did not respond to the question. The survey results indicate that some, but not many, trainees have had the opportunity to work overseas, either in Hawaii or the U.S. mainland, but not Guam. Hence, the project's intended outcome was not achieved.

The question arises as to why many trainees believed that this project would add value to their resumes when or if applying for overseas jobs. Some trainees told the evaluation team that they cannot get information about overseas jobs, and so have little knowledge and experience of applying for overseas jobs. Given this lack of practical experience, trainees

tended to believe that this project “should be” helpful if they apply for overseas jobs, rather than actually knowing that it “would be” helpful.

In relation to trainees acquiring jobs in the domestic labor market, the survey results show that 50% of trainees have acquired a new job since finishing this project, but that of this group, only 38% agreed that the certification received through this project had helped in finding their new jobs. The other figure of note here is that some 53% of trainees admitted that they had been promoted since they finished the project, and that the same percentage of trainees said that their promotion was “because of” the project.

Comparing survey results shows trainees’ relative employability in overseas and domestic labor markets. The project may have helped trainees to find jobs in the domestic labor market, but was less beneficial for trainees looking to acquire an overseas job. For this reason, the project has had the benefit that trainees are eligible to compete in the domestic market, but has not helped trainees to obtain better jobs overseas.

Apart from the TVET training program, this project also emphasized the importance of a qualification system for technicians, and therefore the necessity of building a national technician certification system in the RMI. This case can be used to analyze the quality with which the project was formulated, as some other development organizations had also suggested that an institutionalized skills certification system would be helpful to solve the shortage of skilled workers in the South Pacific. The effectiveness of the technician certification system can be validated through the survey results.

Although the skill standards and certification system provided by this project was limited to automotive maintenance, electrics and plumbing, it is still worth evaluating whether the certification system has been effective in addressing the shortage of skilled workers in the RMI.

To understand the influence of certification issued to technicians as part of the project, the survey asked trainees whether they had been awarded certification through the project (issued by the RMI government), and followed up with a question about the benefits they had gained through this certification.

The results show that 72% of trainees were awarded certification, while 27% of trainees said that they had not been awarded any certification from the project. These figures do not match the number of trainees awarded certification according to the project completion report⁷. For the trainees who were awarded certificates, most said that the certification would help add

credit to their resumes, while some agreed that it would also be helpful when applying to emigrate. A few trainees said that it had had no benefit to them. In terms of trainees who had not obtained certification from the project, 56% of such trainees said that their job opportunities had diminished, and a smaller number of these respondents also said that this had obstructed them in accessing further education.

Comparing answers given by trainees who did and did not receive certification, gaining certification has had a positive influence on trainees and their employers. At the very least, certification has provided employers some sort of reference that enables them to find the right workers in the local labor market.

3. Effectiveness

The project scores 1.75 for effectiveness, which means that project effectiveness is satisfactory. According to the evaluation survey results, more than 80% of trainees said that they were satisfied with training curricula and the quality of teachers, so project beneficiaries acknowledge the quality of project outputs. Nevertheless, the intended outcome of the project was to help trainees to pursue overseas job opportunities. In the project supervision report and completion report, neither the project manager represented by the TaiwanICDF nor the NTC provided any job information about the expansion of the U.S. military base in Guam. In terms of project management, overseas job opportunities were not taken into account despite this being one of the project's most important objectives.

The intended outcome of the project was to upgrade trainees' skills and knowledge so that they would be eligible to compete in the overseas job market, while survey results indicated that only a few trainees have had overseas work experience; for this reason, the project did not achieve its intended outcome.

Evaluation questions also moved on to look at the intended outcome at a more personal level, in terms of whether the project had contributed to the improvement of trainees' livelihoods. The evaluation intended to examine the assumption that as soon as trainees had acquired a decent job, their livelihoods would be improved. In order to understand trainees' current circumstances, evaluation questions had to include questions about personal income.

The first set of questions was designed to elicit trainees' livelihood situation, with trainees being invited to say whether they now spend more or less on daily necessities after finishing the training. The survey results are presented in Table 8 and Table 9.

Table 8. Livelihood survey results

Livelihood improvement	Increased	No difference	Decreased	Don't know	No Respond
Consumption increased or decreased	42%	25%	13%	10%	10%
Income increased because of this project	42%	38%	7%	7%	7%

(For data please refer to Chart K, Appendix 2)

According to Table 8, although 38% of trainees said that their income hadn't increased after they finished the training, 42% of trainees said that the project had contributed to an increase in income, and 42% also agreed that they were spending more money on daily necessities.

Table 9. Survey results for salary and occupational status

Salary and Occupation	Postive	No Effect	Negative	Refused to answer	No respond
Salary or Income	23%	33%	3%	18%	22%
Occupation Status	30%	33%	0%	0%	33%

(For data please refer to Chart L, Appendix 2)

Table 9 reveals a further aspect of the survey, ascertaining whether the project influenced trainees' salary/income or occupational status. These figures are lower than those indicating an improvement in livelihood: 23% of trainees agreed that the project had had a positive effect on their income and 30% of trainees said that they had been promoted because their skills had been improved, while 33% of respondents said that the project had had no effect on their salary or occupational status.

Comparing data in Table 8 and Table 9, two findings are useful in understanding the causality between TVET and improvements in livelihood:

- Finding 1: 42% of trainees said that they spend more money on daily necessities because they were better off than before they joined the training, whereas only 23% of trainees said that their income/salary had increased because of the training.
- Finding 2: 38% of trainees said that their livelihood had remained the same and 33% of trainees said that neither their personal income nor occupational status had improved because of the project.

Finding 1 suggests that 42% of trainees were better off than before, but in accordance with Finding 2, it cannot be proven that training was effective in improving personal income.

In general, 98% of trainees agreed that they have had an opportunity to practice the skills and knowledge they learned from their training, and most were satisfied with the usefulness of such skills and knowledge even if it had not contributed to personal income and/or occupational status. Although 57% of trainees were found to hold a conservative attitude to personal skills improvement, the majority agreed that training had not only upgraded their skills, but had also changed their behaviour and attitude regarding work quality and efficiency.

To review attribution issues within the project results chain, it is necessary to identify external factors that would influence project outcome and outputs. If there are no identifiable external factors, the process would then move on to checking the causality of outputs and the intended outcome. Survey results showed weak correlation between the consequences of training and improvements to livelihoods. This assertion is based on findings from the evaluation survey in results summarized as follows:

- Finding 3: 38% of trainees acquired a new job because of the project and 53% of trainees responded that they were promoted because of the project (Chart I, Appendix 2).
- Finding 4: Only 23% of trainees agreed that training had directly and positively affected their salary, and another 30% of trainees agreed that training had positively affected their occupational status. 33% of trainees said that they had not felt any positive difference in either occupational status or salary (Chart L, Appendix 2).

Finding 3 suggests that trainees had jobs before they were recruited by the project. Finding 4 shows that there is little evidence to support any suggestion that newfound skills and knowledge were effective in increasing trainees' income, even if they already had a job. It is further reasonable to assert that trainees who were unemployed when they were recruited by the project still had difficulty in finding a new job despite being awarded technician certification, and that as such their livelihoods did not improve.

4. Efficiency

The project scores 1.66 for efficiency, which means that project efficiency is satisfactory. Budget management was less efficient. The average cost per graduate was USD 4,654. As a benchmark, in a comparable TVET project conducted by the ADB, the average training cost per trainee ranged from USD 1,538 to USD 5,200. The inputs used by the TaiwanICDF project were less efficient in delivering the intended outcome. Another issue is that the project completion report did not provide further information about the rationality of the budget used

in terms of the cost of resource allocation, and especially in terms of how many human and budgetary resources were expended in mitigating the problems incurred by fixing improper training equipment.

The project's procedural efficiency was highly satisfactory. According to survey results, over half of trainees were satisfied with the quality of tutoring (for data please refer to Appendix 2). A number of trainees told the evaluation team that they admired their automotive maintenance teacher, Mr. Hong Zhen-yuan (洪振源), and their electric and plumbing teacher, Mr. Chen Ying-xiong (陳英雄). The performance of these two teachers and their contributions to the project was remarkable. They concentrated on trainees' learning processes and were willing to help trainees to solve problems regardless of their initial educational background, acting as "mentors" in improving trainees' lifestyles. The only downside was the language barrier, which led to a gap between teachers and trainees if the teachers wanted to provide further explanation, or if they wanted to share their professional experience with trainees. Regarding workshop layout, training equipment and materials and supplements, trainees were also satisfied with the quality of these components.

The achievement of the MoPW should be highlighted in respect to its provision of human resources and support facilities, which were important factors in project implementation. The NTC, the executing agency, however, is limited in capacity by its scale and resources, and thus currently does not have the ability to conduct regular examinations for automotive maintenance, electric and plumbing. As for the teacher training component, the TaiwanICDF designed this sub-project for the NTC during project completion. Trainers were recruited and sent to Taiwan to take part in advanced automotive maintenance, electric and plumbing training. Regarding the performance of these trainers, at the time the evaluation team visited the RMI the trainers had still not taken a proactive role in the project.

There was a reaction and a solution was adopted to deal with problems arising from the contractor's performance and its inefficient training performance. To mitigate, retired vocational training teachers were recruited and asked to assist in improving training quality and administrative services.

Although the average cost per trainee is relatively higher than the ADB case and although project equipment was not designed for the RMI, almost every teacher did contribute toward improving the local workshop environment and training equipment. Ultimately, project-related hardware improved during the course of the project.

5. Sustainability

The project scores 1.4 for sustainability, which means that project sustainability is moderately satisfactory. The performance of project sustainability can be evaluated in terms of the demand of local society for the project; the influence of external circumstances on the project outcome; executive agency management; human resources; and law, regulations and public administration.

Regarding the demand of local society for the project, according to survey results, 48% of trainees recognized that the training was useful and that they took part in order to improve their employability. Although the project did not directly assist trainees to find high-paying jobs overseas, the certification and quality of the training gave Marshellese employers' a good image that enabled trainees to find jobs more easily in the domestic job market (Charts I and J, Appendix 2). Data showed that local society acknowledged that TVET could be a solution to mitigate the RMI's unemployment problem. However, there are several limitations that should be taken into account before passing judgement on project sustainability.

A number of external factors could or have threatened the continuation of the TVET project. The first is the limited scale of the operations of the RMI private sector. There is high demand for technicians or specialists in electrical engineering, refrigeration engineering, production management and marine engineering among government-owned corporations, foreign investors or Marshellese-owned companies alike, and especially in the fishery, food processing and construction industries. For the private sector and even for the government, it can be cost effective to hire foreign experts to take these jobs. For this reason, the RMI government has been reluctant to establish an advanced technical and vocational education system. This could instigate a downward spiral, for example, if companies can't acquire technicians in the local market, and hire technicians from other countries. The more companies do so, the less Marshellese will have opportunities to access high-end, better-paying professional jobs in their homeland.

At the same time, weak literacy and mathematical ability also hindered trainees in picking up advanced knowledge through more-professional, advanced training. The effectiveness of TVET will be very limited if basic education problems are not resolved. However, this issue may indeed be being resolved through the RMI primary education system: Since 2010, the RMI Ministry of Education has been renovating the elementary school system, and elementary school students do not need to pay tuition fees. This will be positive for the long-term development of human resources in the RMI.

A further consideration is the RMI's policy regarding foreign labor. The RMI government has been raising the bar for foreign workers applying for working visas. It seems that this policy

may not have been too effective since the total number of foreign workers has still increased. From this, it could be understood that the establishment of the RMI national technician certification system will not succeed if companies and entrepreneurs are absent from policy formulation and implementation. If the RMI government encourages companies to hire more Marshellese and motivates them in terms of policy benefits, companies may have more motivation to be involved in and assist TVET and educational development in the RMI.

Regarding the performance of the project's executing and implementing agencies, according to the results of interviews with CMI faculties, the CMI wishes to take over the project as soon as the NTC completes the continuing training program, known as Jita Kappel 4. There are several considerations if the CMI takes over the project from the NTC, should the NTC decide to suspend training. Firstly would be the agency's goal. The mission and organizational function of the CMI is to provide formal TVET services for Marshellese people, but although the CMI has the capacity and resources to conduct TVET, it would be questionable as to whether the CMI can take on informal TVET and incorporate it as part of its TVET curriculum.

Another consideration is whether the project's human resources are solid enough to sustain project results. Although the TaiwanICDF helped the implementing agency, the MoPW, to train TVET teachers in terms of an advanced training program before officially withdrawing from the project, it is questionable whether these trained teachers still have opportunities to take a more proactive role after the project was phased over to RMI partners. Given that the NTC still lacks resources to conduct the continuing training program, it would be questionable if they can deliver qualified training knowledge to future trainees because they rarely practice the delivery of such training.

IV. Issues, Lessons Learned and Suggestions

1. Issues

Although TVET training or TVET is an alternative intervention widely adopted by development organizations, and has been recognized as effective in solving unemployment problems for adolescents, women and minority groups, the training curriculum design, project preparation and implementation and the intended outcome of such interventions are very different from project to project. In this case, the project's intended outcome was to increase the number of skilled worker available to RMI companies and entrepreneurs. For this reason, project stakeholders should not have been limited only to government and colleges; entrepreneurs and local business owners should also have been included in the stakeholder list.

Indeed, job opportunities and income depend on many socio-economic factors such as

economic growth and industrial structure. If the intended outcome of a TVET-based intervention is to improve people's livelihoods or to address unemployment, several other compatible interventions, such as apprenticeships, job matching and subsidies for employers, should be taken into account when an agency plans the results chain of such a project.

If the project design of a TVET-based intervention does not consider entrepreneurs, companies and small-and-medium business owners' opinions, this could be considered a risk. Interdepartmental cooperation within a partner country's government is also important, and departments responsible for labor and business should take a proactive role in both project preparation and implementation.

2. Lessons Learned

2.1 Mitigation shows organizational reform within the TaiwanICDF

The mitigations adopted in Cycle 2 and Cycle 3 of technical and vocational training show that the TaiwanICDF started to introduce reforms to its internal management and operations, not only as part of this project but across the whole organization. TaiwanICDF leadership noticed that problems occurring as part of the project did not represent a single case, but rather that many projects also had the same kinds of problems, for example that project design had little relevance to the partner country's demands and that project results were infrequently or had never been measured.

Since 2010, the TaiwanICDF has begun to review and manage project performance, as a result of which some projects have either been adjusted or closed due to unsatisfactory performance. New knowledge and project management tools have also been introduced and adopted, such as a new project plan format and a design and monitoring framework. These reforms have proved effective in emphasizing the importance of aid effectiveness in project design and implementation, project rationality, formulation quality and project sustainability.

Organizational reforms also drove this project forward, as can be recognized from the project's supervision report, which detailed the problems and solutions provided by TVET specialists from Taiwan's Central Vocational Training Center, who acted as consultants to the project. Based on professional insights, these consultants suggested that the curriculum of electrics and plumbing training should be adjusted in accordance with the RMI's economic circumstances. The original training curricula, which would not have been able to help trainees to find overseas jobs, were redesigned to make trainees eligible for self-employment. These mitigations not only addressed the curricula but also resulted in passing on a further range of practical experiences to the project.

According to survey results, this response was efficient because most trainees expressed satisfaction with training quality and curricula design. These mitigations made by the TaiwanICDF turned a negative situation around and made the project more effective, among other things upgrading trainees' skills and abilities, and facilitating trainees' awareness of career development. This makes it disputable that there was only a weak correlation between the skills learned and an improvement in employability through the project.

Project performance seems to be contradictory in the sense that the project's effectiveness and efficiency are acceptable, while the relevance and sustainability of the project are not satisfactory. This could be because of problems in project design that were not resolved despite the fact that the TaiwanICDF began to address them. From this case, we learn that even if project inputs and outputs can truly contribute to a target group, that if the intended outcome and intervention logic have little relevance to the core problems and/or the partner country's development priority, then it could be impossible for a project to be able to make meaningful changes in the partner country, as well as for the target group and stakeholders.

2.2. Bidder qualifications and procurement management

Project outsourcing can be an option for project designers when they think that they have insufficient experience in the design and management of a certain type of project. This allows project designers to expend fewer resources for the expected outputs. A qualified contractor is not only able to deliver products on time, on budget and to specification, but also allows the receiving organization and its employees to benefit from the contractor's knowledge and experience. For this reason, project outsourcing can certainly be adopted as a strategy in order to improve and upgrade organizational performance, especially if an organization wants to be involved in emerging development issues.

In this case, it was reasonable for the TaiwanICDF to outsource project components to a professional technical and vocational education organization. The project contractor, NYUST, was well recognized and reputable in terms of advanced technical and vocational education, and the school had an excellent ranking among Taiwan's technical universities.

NYUST's performance in the project, however, was below average. Some questions emerge here: Firstly, what made a school with a good record fail; and secondly, why was the performance of retired vocational training teachers better than university teachers, as was recognized by the stakeholders.

An answer to the first question must refer to the contractor's commitment to the target group and the partner country's development priorities. These issues reflect people's attitudes and

can hardly be regulated in contractual terms. In NYUST's case, the teachers assigned by the university accepted the university's decisions as they were and would appear to have viewed the project requirements as a regular job. By contrast, the performance, attitude and behavior of the retired vocational training teachers clearly showed that they recognized the significance of this project and wanted to contribute more than was necessarily required by the project. This group was not only devoted to upgrading trainees' skills and knowledge, but also looked to develop the best teaching plan so as to help trainees change their mindsets through a work ethic and healthy lifestyle. This motivated trainees and strengthened their will to improve their livelihoods.

Outsourcing is an alternative to implementing every component of a project, but not every project is suited to being outsourced. Project designers should carefully analyze each component. If a component mainly involves providing services for a target group, and if the project's specialist or technician will need to work closely with the target group, then the project manager should carefully review bids in respect to their commitment and understanding to international development and technical cooperation.

3. Suggestions

A consultant's suggestions should be applicable and a partner country's development conditions should be considered as part of a project. However, any solutions proposed by the consultant should be verified before being adopted into the project's framework and a consultant's advice or plan should be suitably tested before being used as a reference for decision-making. Some consultants are not able to provide applicable advice because they do not understand a partner country's circumstances. In some cases, a consultant may hold too much sway over a project's framework and thus impose personal ideals into a project's design.

This is a risk if a project designer accepts a consultant's advice and integrates it into a project plan. For the project designer, it will be difficult to make a judgment on the consultant's suggestions as to whether such solutions, plans, analysis or suggestions are practical and applicable for a target group. For this reason, the management of the quality of consultancy services must not rely solely on the project designer's experience and knowledge, but rather be regulated and subject to internal process management that safeguards the efficacy of consultant contracts so as to prevent these types of problems arising.

It should also be noted that interval and short-term contracts are less appealing to some experienced consultants. A project manager should provide a reasonable compensation package in accordance with market prices, as well as take into account the fact that long bouts of travel can negatively affect the quality of consultant services. For this reason, it is

necessary to confirm a consultant's expectations and requirements before inviting him/her to join a team. It is also important for a project manager to provide comprehensive information to a consultant regarding a partner country's development circumstances and the state of target groups.

Appendix 1. Evaluation Design Matrix

Design matrix for: Vocational and Technical Training Project for Republic of Marshall Islands

Evaluator:

How-chang Wang, Yu-wei Mai

Main evaluation Issues: To review the theory of change in this project in order to validate project performance and derive lesson learned from the project design and implementation

General evaluation approach:

Results-based Approach

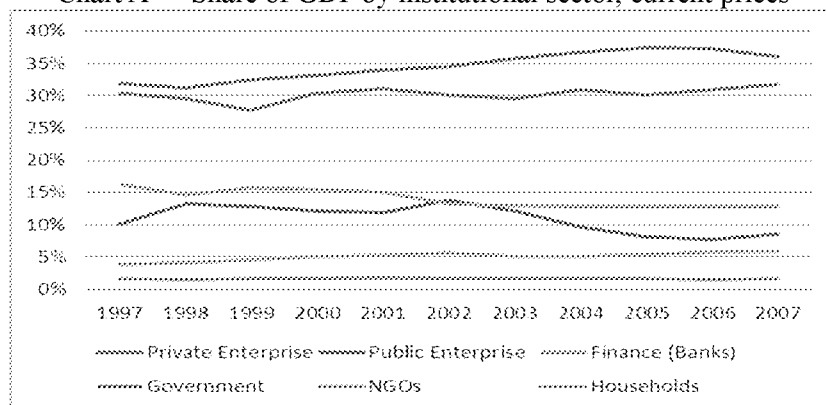
Hypothesis	Question	Type of question	Measure or indicator	Target or standard (normative)	Baseline data	Data source	Design	Sample or census	Data collection instrument	Data analysis	Comment
All trainees can understand the knowledge and skills given by this project for RMI, and this improvement in employability makes all trainees eligible to compete in domestic and overseas labor market.	If employment rate of project participants is higher than national employment ratio	Normative	Employment to population ratio		ADB.	Data provided by ADB and		Census	Questionnaire Section 2 Employment information.	Descriptive Statistic	
	To what extent RMI labor market still needs automotive, electric and plumbing technician. Based on market demands, NTC may have ability to conduct training project after TaiwanICDF not provides financial support.						Satisfaction of employers with TVET graduates		Questionnaire -Section 2 Employment information. -Module 3 Employment Status and Decent Job -Module 4 Own business or self-employment	Descriptive Statistic	

The employability improvement on each trainee would also directly affect to trainee's occupation status, income and job opportunity.	Whether trainee occupation status is higher than if trainees acquired certification.		Unemployment rate Informal employment rate Time-related unemployment rate			Data provided by ADB and					
	What is the extend of improvement to trainee's income, occupation status and live circumstance		Employment by occupation Working poverty rate Average real earning by occupation and industry				What the extend of improvement to trainee's income, occupation status and live circumstance		Module 2 Household situation Module 3 Employment and decent job	Descriptive statistic	
The knowledge and skills given by this project is practical and useful, graduate trainee, regardless they are	The evaluated project cost-and-benefits is reasonable, if cost structure benchmarked by other similar project.						The evaluated project cost-and-benefits The usefulness and practical of training program		Module 3 Employment and decent job Module 5 Overall satisfaction rating	Descriptive Statistic	

automotive, electric or plumbing, they all have opportunity to practice knowledge and skills.	The usefulness and practical of training program								Module 1 Skills and knowledge given by project	Descriptive Statistic	
The RMI labor market still has demand Partners capacity, partner's development priority and	Stakeholders involved in this project have ability to carry on this project since TaiwanICDF withdrew its resources,						Meeting and Interview		Interview with Key stakeholders Partner meeting with National Training committee, Ministry of public works and College of Marshall Islands		
	External conditions allow this project sustainable development.		Foreign workers increase rate GDP/ GNP and others economic development Indicators			Ministry of Foreign affair of Republic of Marshall Islands				Descriptive Statistic	

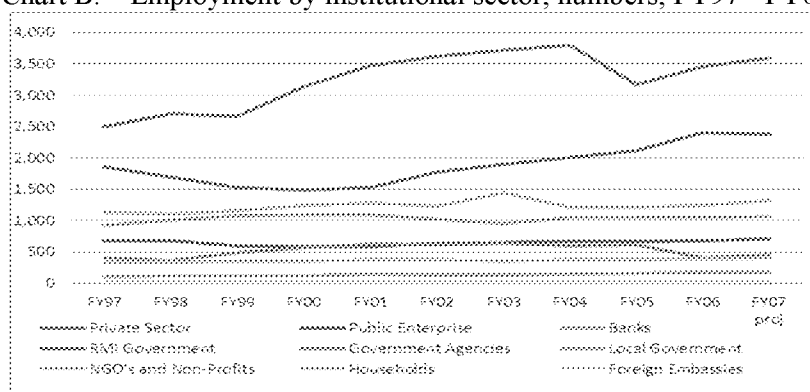
Appendix 2. Survey Results (demonstrated by diagrams)

Chart A Share of GDP by institutional sector, current prices



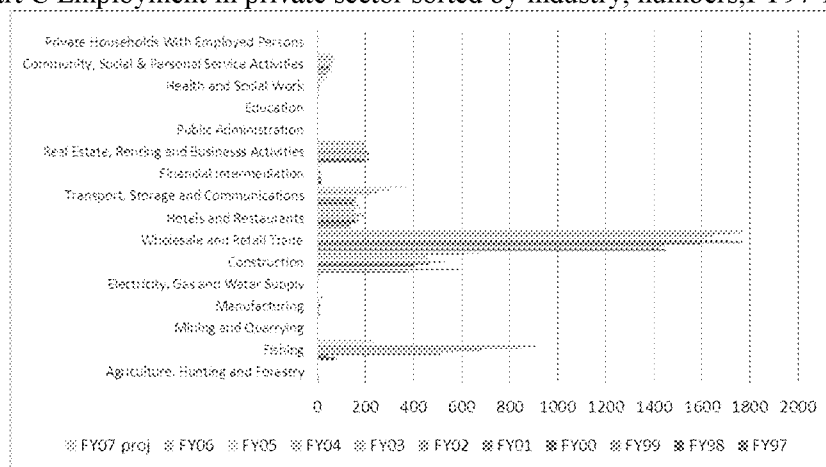
Sourced: Pacific Regional Statistic, Secretariat of Pacific Community

Chart B. Employment by institutional sector, numbers, FY97 - FY07



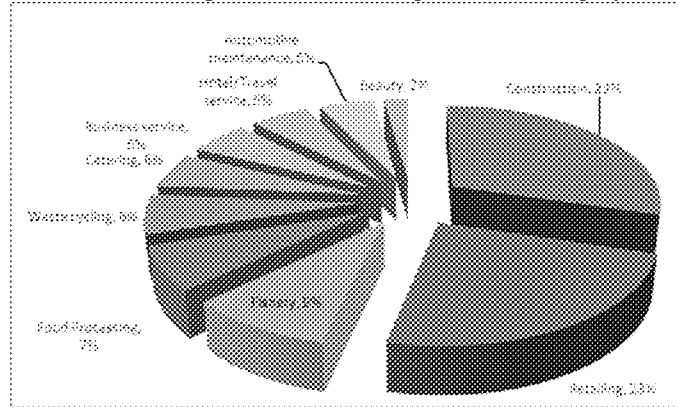
Sourced: Pacific Regional Statistic, Secretariat of Pacific Community

Chart C Employment in private sector sorted by industry, numbers, FY97-FY07



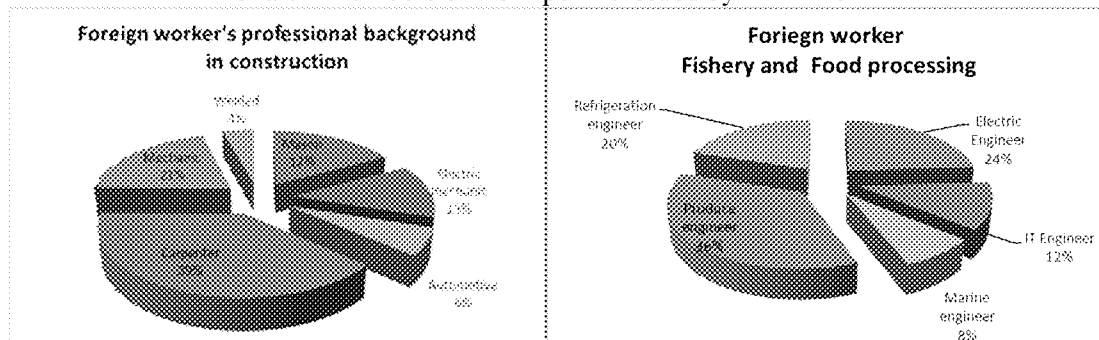
Sourced: Pacific Regional Statistic, Secretariat of Pacific Community

Chart D The distribution of professional background holding by foreign workers



Sourced: RMI Ministry of Foreign Affairs

Chart E Numbers of work permit issued by RMI MoFA



Sourced: MoFA, RIM

Chart F Employment divided by training cycle and trainees' occupation status

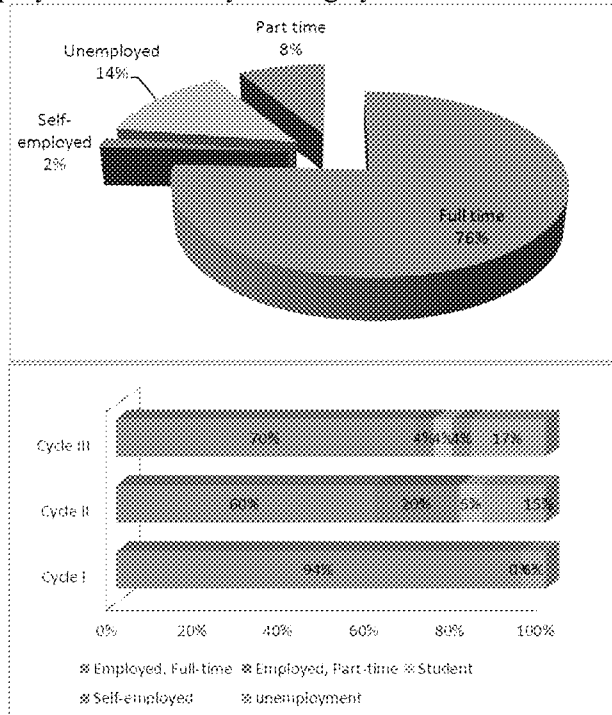


Chart G. Overseas work experience

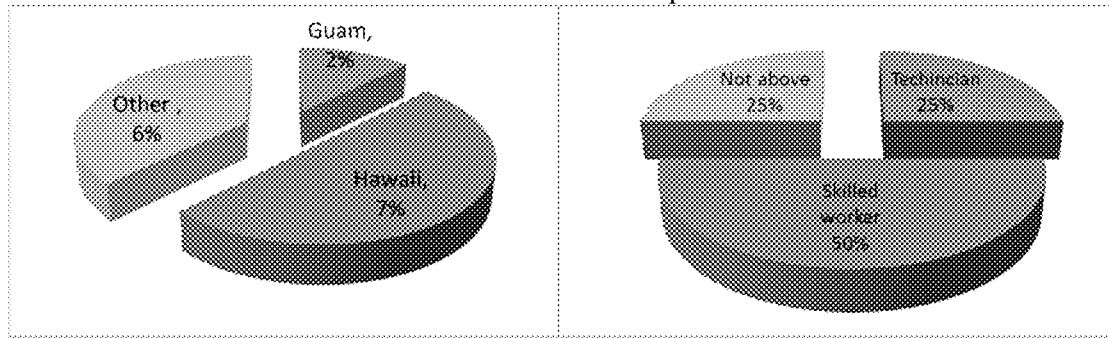


Chart H. Whether this project gives benefits to trainees when they find overseas job

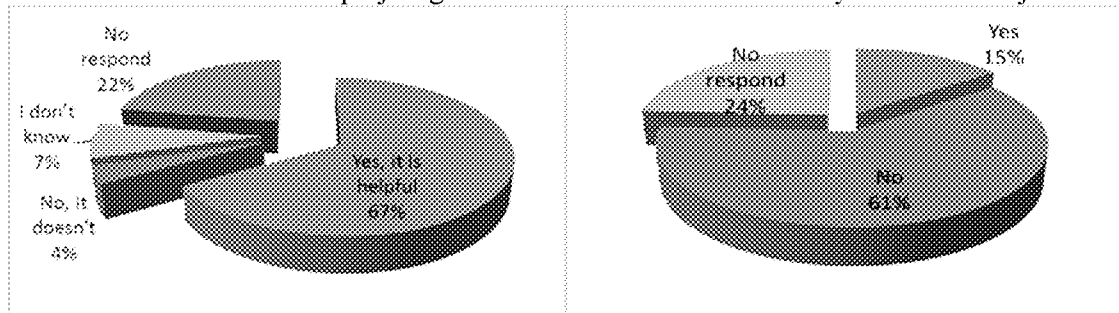


Chart I. Trainee acquired new job in RMI

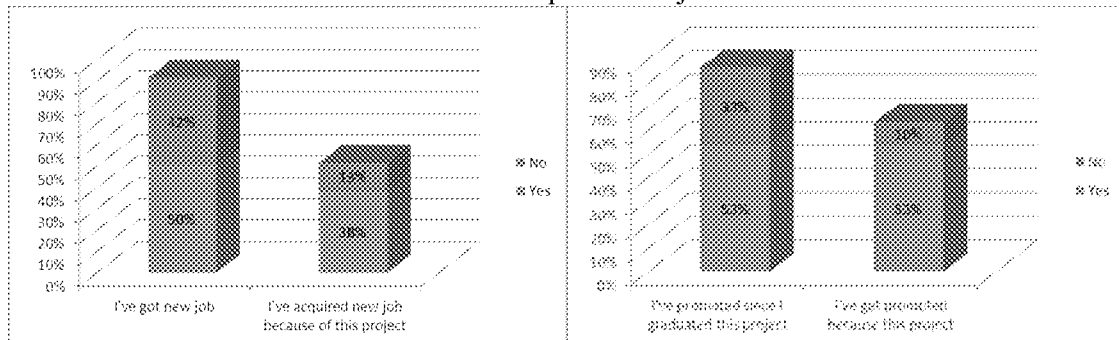


Chart J. The effective of skill certification for trainee

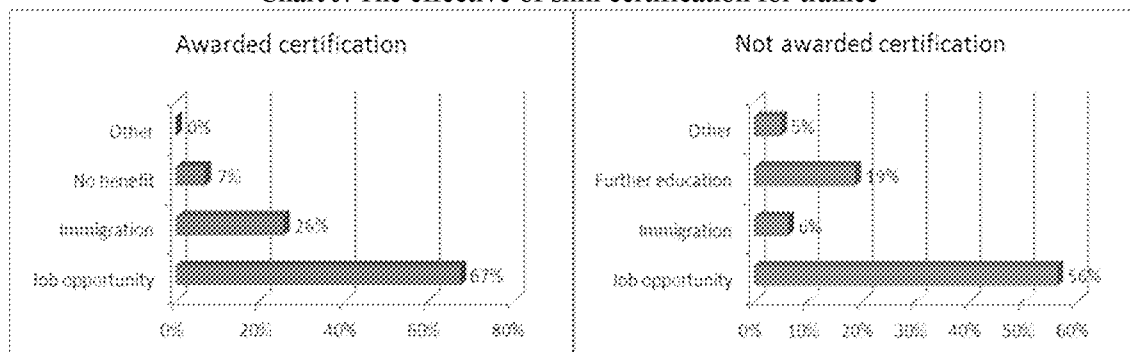


Chart K. Household consumption change, before and after the training

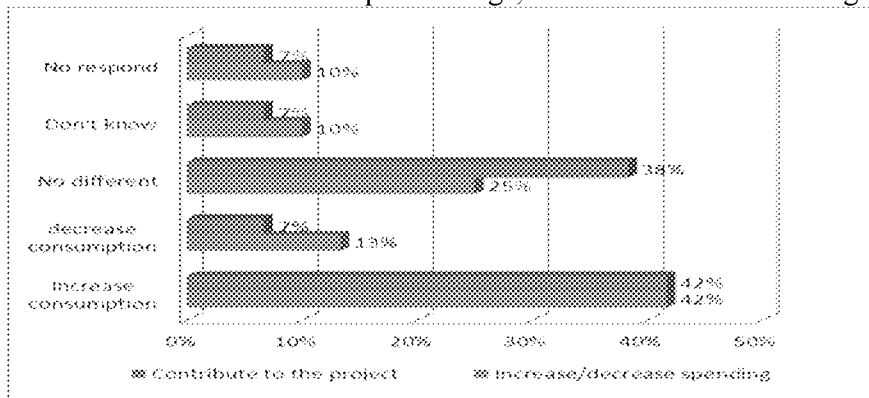


Chart L. The changing in position and salary before and after training

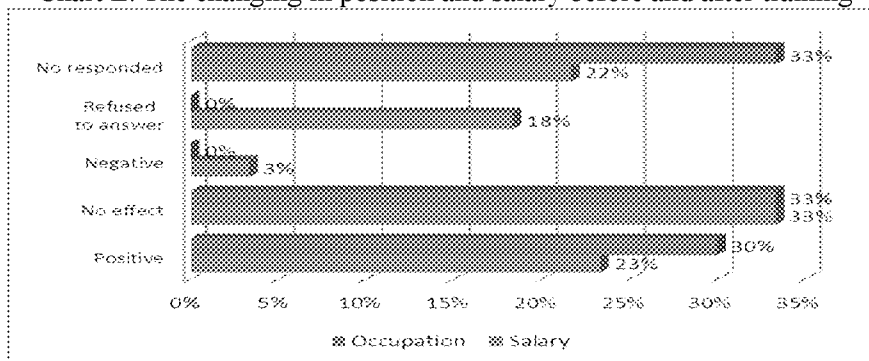


Chart M. Self-appraisal to personal skills and knowledge

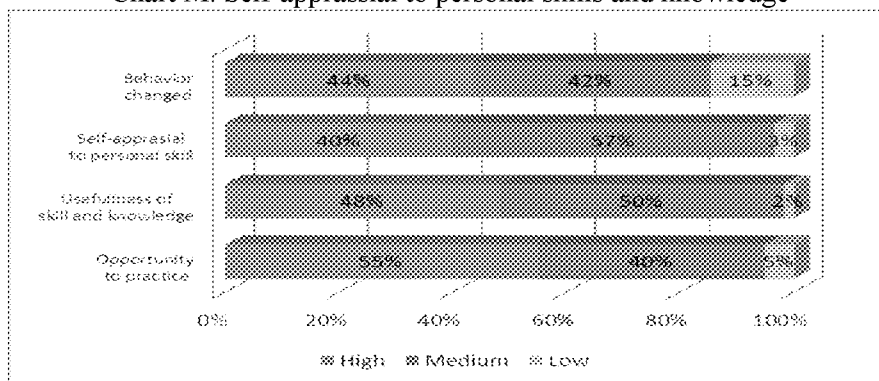
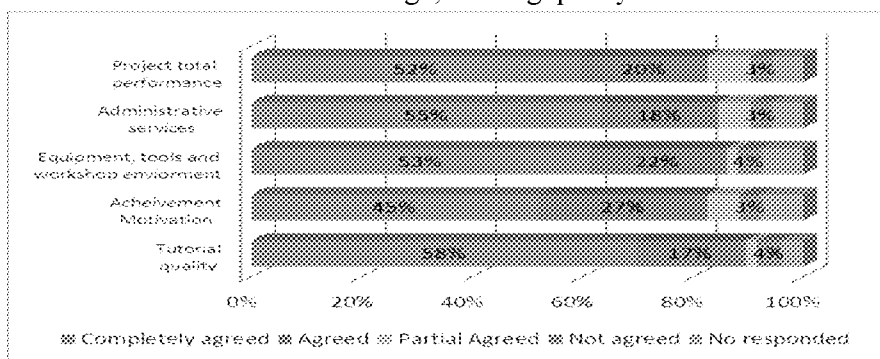


Chart O Satisfaction to curriculum design, tutoring quality and administrative services



Appendix 3.

The relationship between unemployment and the increase in the number of foreign workers in the RMI

To comprehensively understand the root cause of unemployment in the RMI and to review whether the TaiwanICDF's TVET project has been truly useful in mitigating unemployment, analysis of the RMI's industrial and economic structure was carried out. This clarifies the relationship between an increase in foreign workers and a shortage of skilled workers, suggesting that this could be one of the root causes of unemployment in the RMI.

▪ GDP growth cannot contribute to employment growth

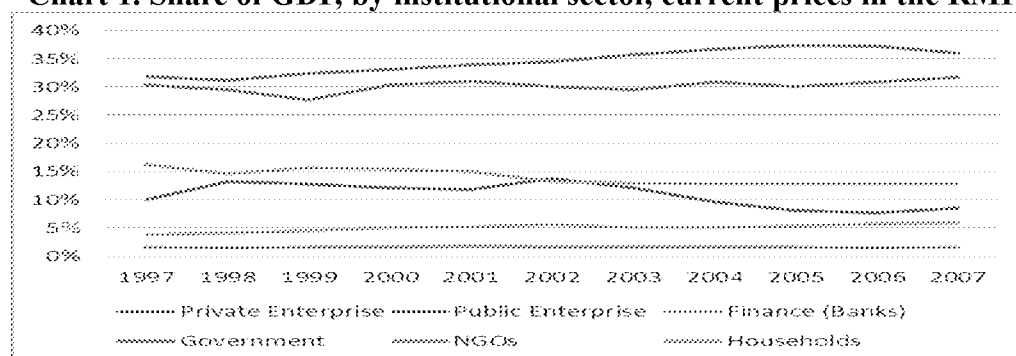
It is widely accepted that growth in a country's GDP will contribute toward the creation of jobs and increasing incomes. This assumption seems to be less effective in explaining the reason for unemployment in the RMI. In recent years the average GDP growth rate in the RMI was around 2% to 5%⁸. During the same time, the number of foreign workers increased from 505 to 1,346. Marshallese people seem to have benefitted less from the fruits of GDP growth with respect to job opportunities.

Looking at industrial structure and GDP contributions, the government and public enterprises have contributed more than 50% to GDP. The contribution of the private sector to GDP has been lower than the government and public sector at about 15% to 18%. Furthermore, comparing GDP contributions to the total number of employees, the total number of employees working in the private sector has been slightly lower than the public sector. From FY 2001 to FY 2004, the total number of employees working in the private sector was higher than the public sector. This shows that the private sector of the RMI has been more efficient in creating job opportunities⁹.

⁸ Marshall Islands at a glance, World Bank, http://devdata.worldbank.org/AAG/mhl_aag.pdf. Accessed

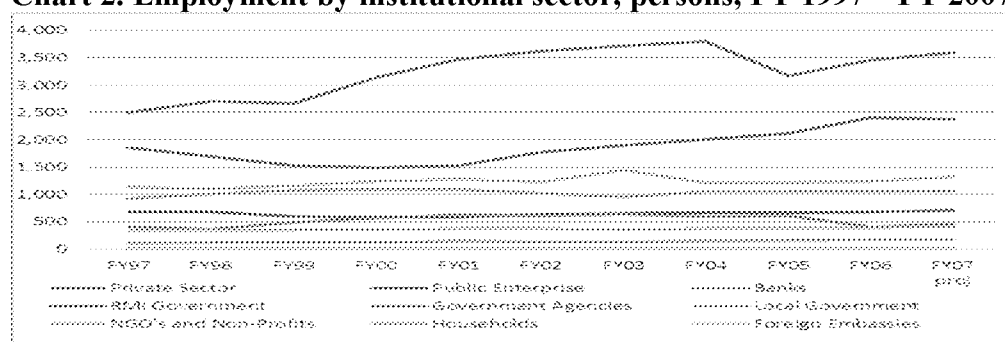
⁹ EPPSO

Chart 1. Share of GDP, by institutional sector, current prices in the RMI



Source: Pacific Regional Statistics, Secretariat of the Pacific Community

Chart 2. Employment by institutional sector, persons, FY 1997 – FY 2007



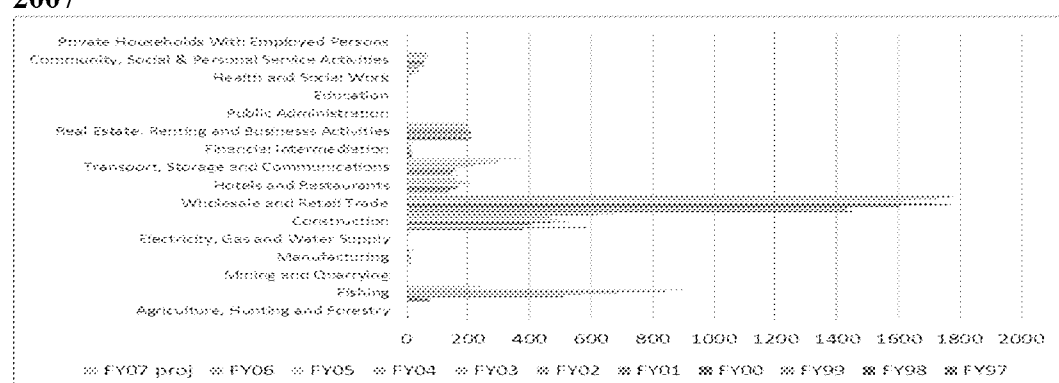
Source: Pacific Regional Statistics, Secretariat of the Pacific Community

▪ Newly created jobs were shared by foreign workers

If the private sector has the potential to create job opportunities, a further question arises: Which industry could be the biggest employer? The TaiwanICDF evaluation mission acquired data about visas issued to foreign workers by the RMI Ministry of Foreign Affairs showing the total number of foreigners applying for work visas over nearly three years. The evaluation team also collected employment, economic and industrial data provided by the ADB and the Secretariat of the Pacific Community.

Chart 3 shows that the wholesale and retail trade sector is the main employer. The fishing and construction industries are the second- and third-most important employers in the RMI, with both industries hiring 300 to 900 Marshallese people. However, the capacity for job creation within the fishing sector is even weaker than construction due to instability in terms of labor demand. The fourth- and fifth-most important industries are real estate and transportation. Although these two industries do not hire many employees, their demands are fairly stable.

Chart 3. Employment in the private sector by industry, persons, FY 1997 – FY 2007



Data show that construction, fishing, real estate and transportation are ranked as the second, third, fourth and fifth main employers. It cannot be assumed that every worker skilled in electrics and plumbing would be eligible to work in these industries since the skills and techniques required vary significantly from industry to industry. Furthermore, those with entry-level skills cannot be recognized as qualified, skilled workers. Although construction, fishing, real estate and transportation provide stable and predictable labor demands in the RMI, the RMI's capacity to provide skills training for workers is too weak to satisfy employers' demands. Thus, foreign workers offer an alternative solution for employers. In other words, the unemployment problem originates from an imbalance between supply and demand in the labor force.

In order to validate this assumption, we analyze trends and the distribution of foreign workers in RMI industry. Table 1 shows employment, unemployment and foreign workers. The increase in the number of foreign worker increase was stable from 1999 to 2006, but surged in 2010.

Table 1. Comparison of employment and total number of foreign workers

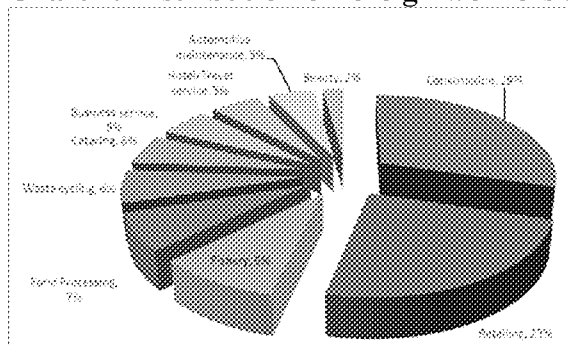
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Formally employed	7,978	8,602	9,211	9,589	9,961	10,153	9,765	10,147	10,439	10,393	10,279	10,522	10,482
Unemployed	4,536	4,618	4,701	4,785	4,871	4,959	5,048	5,138	5,231	5,325	5,420	5,518	5,617
Foreign workers	505	585	812	922	720	764	437	684				1,346	

Source: ADB, 2012

Regarding the number of foreign workers by industry, as shown in Chart 4, foreign

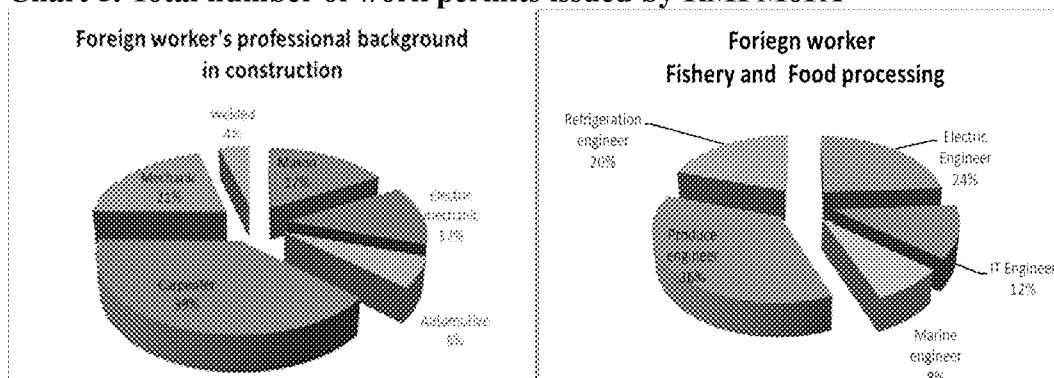
workers are mainly employed in construction, followed by retailing and then fishing. These figures indicate the causality between an influx of foreign workers and a shortage of skilled workers. Thus, in terms of the demand within the private sector for skilled workers, the question arises as to what kind of skilled workers or technicians might be most needed if they could be hired from within the RMI.

Chart 4. Distribution of foreign workers by profession



Source: RMI Ministry of Foreign Affairs

Chart 5. Total number of work permits issued by RMI MoFA



Source: RMI Ministry of Foreign Affairs

Within the construction sector, carpentry, mechanics and masonry ranked as the top three types of skilled foreign skilled worker. As to the fishing and food processing, engineering, electric engineering and refrigeration engineering ranked as the top three types of skilled foreign worker.

Data indicated that the types of skilled worker are diverse, and that the number of each type of skilled worker is too small to be able to efficiently establish a professional school or training center in the RMI. This represents a further obstacle to the planning of TVET projects: The total demand for a specific type of skilled worker is too little to initiate a training program, while the investment in the subject is too expensive to be able to recruit enough trainees.

Appendix 4. The Survey Questionnaire

Hello, We are project manager of Research, Development and Evaluation office of TaiwanICDF, we came here alone is want to know how this project contributed for your career, and what matters need to be addressed where you found in this project. Your personal information is case sensitive and we promise that we will keep any comments from you in confidential.

Please answer Section 1 Column and tick occupation status in Section 2, than you will be advised to follow module instruction to complete this questionnaire.

Thank for your time and concentration

Project Manager,

Research, Development and Evaluation office, TaiwanICDF

Section 1. Participant Information			
Participant Name			
Participant Address			
Participant Phone			
Participant training program	Jitok Kapeel Cycle I <input type="checkbox"/> Cycle II <input type="checkbox"/> Cycle III <input type="checkbox"/>		
Sex	M	F	Age

Section 2. Employment information	
Currently, what is your main occupation status?	
a. Employed by someone else and paid a salary	Please answer Module 1, 2 ,3 and 5
b. Self-employed and sell your goods or services	Please answer Module 1,2, 4 and 5
c. Unemployment	Please answer Module 1,2, and 5
d. Temporary work	Please answer Module 1, 2, 3 and 5

Module 1. Skill and knowledge you have learned from this project		
In this Module, you will be consulted about what changes you have had, and how you think toward changes since you graduated from this project		
1	Do you have opportunity to practice skills and knowledge where you learned from this project after you graduated?	<input type="checkbox"/> Yes, I have many chances to practice it <input type="checkbox"/> Yes, I can use it sometime

		<input type="checkbox"/> No, I have no chance to use it
2	Do you think skills and knowledge given by this project are practical and useful both for your career development and life?	<input type="checkbox"/> Yes, very useful <input type="checkbox"/> Yes, but I still need to learn more. <input type="checkbox"/> No, I don't think this project useful
3	Do you satisfy your current skill and knowledge level?	<input type="checkbox"/> Yes, I am satisfy with it <input type="checkbox"/> Yes, but I still want more improvement. <input type="checkbox"/> No, I don't satisfy with it
4	Have you changed any of your work practices since you learned skills and knowledge form this project?	<input type="checkbox"/> I've improved work quality <input type="checkbox"/> I've practiced techniques taught by this project. <input type="checkbox"/> I am more productive than before. <input type="checkbox"/> I haven't experienced any change. <input type="checkbox"/> I don't know
5	If you have opportunity to join in TVER project, what kind of training program you think it will be more effective to improve your life and income.	<input type="checkbox"/> Finance and Accounting <input type="checkbox"/> Language <input type="checkbox"/> Business and management <input type="checkbox"/> Information technology <input type="checkbox"/> Fishery <input type="checkbox"/> Agriculture <input type="checkbox"/> Other:_____
6	Do you award Certification/ License issued by National, this Certification/ License is used to proof you are specialist of Automotive or Electric.	<input type="checkbox"/> Yes, I am <input type="checkbox"/> No, I don't receive this kind of Certification/ License
6-1	If the answer is yes, please tell me what benefits you acquire because of this certification/ License	<input type="checkbox"/> It helps me to apply a new job <input type="checkbox"/> It adds value to me while I apply migration to other country <input type="checkbox"/> It doesn't provide any benefit to me
6-2	If the answer is no, please tell me what difficult you have encountered	<input type="checkbox"/> Lack of Certification/ License makes me difficult to apply new job, because new employer want proof document.

		<input type="checkbox"/> Lack of Certification/License is defect when I apply migration <input type="checkbox"/> Lack of Certification/ License hinder me to acquire further/Higher education <input type="checkbox"/> Other (Please specify)
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Module 2. Household Situation		
In this module, you will be asked what extent you and your family have experienced since you finished this project		
1	Have you increase/decrease your spending on daily necessities, such as food, clothes, moving etc.	<input type="checkbox"/> Yes. I've increase spending <input type="checkbox"/> No, I've decrease spending because I can't afford it <input type="checkbox"/> It has no differentiation <input type="checkbox"/> I don't know
2	Do you earn more after you finished this project that make you have ability to pay for good food, nice clothes or overseas travel than before	<input type="checkbox"/> Yes, I am richer than before <input type="checkbox"/> No, I am poorer than before <input type="checkbox"/> It has no differentiation <input type="checkbox"/> I don't know
3	How many schooling years did you have in total?	Please specify

Module 3. Employment and Decent Job		
In this module, you will be invited to answer your current position level, salary, and offers given by your employer.		
1	Do you get a new job	<input type="checkbox"/> Yes <input type="checkbox"/> NO
1-1	If the answer is yes, is this because this project.	<input type="checkbox"/> Yes <input type="checkbox"/> NO <input type="checkbox"/> Don't Know
2	Did you get promotion after you graduated from this project	<input type="checkbox"/> Yes <input type="checkbox"/> No
2-1	If the answer is yes, do you think this project help you to get opportunity being promoted	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
3	Do your employer/ client trust in you and asking you to take more responsibility than before.	<input type="checkbox"/> Yes <input type="checkbox"/> No

3-1	If the answer is yes, do you think it mainly due to this project	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
4	Do you ever worked, or currently work aboard?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4-1	If the answer is yes, please specify where you work in?	<input type="checkbox"/> Guam, US <input type="checkbox"/> Hawaii, US <input type="checkbox"/> Fiji <input type="checkbox"/> Other country _____
4-2	And What kind of job you have while you work aboard?	<input type="checkbox"/> Technician <input type="checkbox"/> Skilled Worker <input type="checkbox"/> Unskilled Worker <input type="checkbox"/> None of the above
4-3	Do you think skills and knowledge you learned from this project is helpful when you find overseas job?	<input type="checkbox"/> Yes <input type="checkbox"/> NO <input type="checkbox"/> Don't Know
4	Can you tell me your average week salary near two weeks	<u>Please specify the number</u>
5	Has your salary....	<input type="checkbox"/> Increase because this project <input type="checkbox"/> It doesn't change <input type="checkbox"/> Decrease because this project <input type="checkbox"/> I rather not answer this question.
6	Has your position level ...	<input type="checkbox"/> Higher than before since I join this project <input type="checkbox"/> It doesn't change <input type="checkbox"/> Lower than before since I join in this project

Module 4. Own Business or Self-employee		
This module is designed for participant who operates his/her own business, or is self-employment.		
1	Have you get new clients, business opportunity since you graduated from this project	<input type="checkbox"/> Yes <input type="checkbox"/> NO
2	Does your productivity is higher than before, for example, you can do quicker and work quality is better than before.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
3	Have you ever introduced new products or	<input type="checkbox"/> Yes <input type="checkbox"/> No

	services since you graduated this project?	<input type="checkbox"/> Don't know
4	Do you expand investment in your business, such as buying equipment, building or car since you graduated from this project?	<input type="checkbox"/> Yes <input type="checkbox"/> No
5	How many employee you hired for your business	<u>Please specify the number</u>

Module 5. Overall satisfaction ranking		
In this module, you will invite to rank overall performance to this project		
1	Do you think that teachers engaged in this training program, they paid attention on your learning process, and gladly answered your questions?	<input type="checkbox"/> Highly satisfaction <input type="checkbox"/> Satisfaction <input type="checkbox"/> Partly satisfaction <input type="checkbox"/> Not satisfaction
2	Do you think this project encouraging you to improve your life, and have stronger willing to upgrade level of skill?	<input type="checkbox"/> Highly satisfaction <input type="checkbox"/> Satisfaction <input type="checkbox"/> Partly satisfaction <input type="checkbox"/> Not satisfaction
3	Overall, do you satisfy with equipment, tools and learning environment provided by this project?	<input type="checkbox"/> Highly satisfaction <input type="checkbox"/> Satisfaction <input type="checkbox"/> Partly satisfaction <input type="checkbox"/> Not satisfaction w
4	Overall, do you satisfy with the management and administrative services delivered by this project?	<input type="checkbox"/> Highly satisfaction <input type="checkbox"/> Satisfaction <input type="checkbox"/> Partly satisfaction <input type="checkbox"/> Not satisfaction
5	Overall, do you think this project truly met your expectation and satisfy your needs even it was completed yet.	<input type="checkbox"/> Highly satisfaction <input type="checkbox"/> Satisfaction <input type="checkbox"/> Partly satisfaction <input type="checkbox"/> Not satisfaction