

Country Name	The project for Capacity Development of Teaching Staff in the Faculty of Engineering, the National University of Timor-Leste (CADETES)
Timor-Leste	The project for Capacity Development of Faculty of Engineering, Science and Technology, the National University of Timor-Leste (CADEFEST 1)

I. Project Outline

Background	<p>The shortage of highly skilled human resources was one of the important national issues for Timor-Leste. In order to cope with this issue, the Ministry of Education aimed at training competent engineers who were able to respond to the needs of the labor market through upgrading the Polytechnics to the Faculty of Engineering of the National University of Timor-Leste (UNTL). JICA supported UNTL for rehabilitation of facilities and equipment by an emergency grant aid (2003) and capacity development of its teaching staff by the “Project for Capacity Development for Teaching Staff in the Faculty of Engineering” (2006-2010). As a result, skills and knowledge of the teaching staff for education and research were improved. Yet, further strengthening of their capacities was needed.</p>																								
Objectives of the Project	<p>Through improved educational environment, practical graduation research and improved faculty management of the Faculty of Engineering, Science and Technology of the National University of Timor-Leste, the projects aimed at provision of excellent education under appropriate management and operation, thereby contributing to development of highly skilled human resources who would contribute to the society.</p> <p>[CADETES] 1. Overall Goal: The quality of education in the Faculty of Engineering, UNTL is improved. 2. Project Purpose: Basic teaching capacity of teaching staff in the Faculty of Engineering, UNTL is improved through practical activities.</p> <p>[CADEFEST 1] 1. Overall Goal: The Faculty of Engineering, Science and Technology produces high-skilled human resources who can contribute to the society. 2. Project Purpose: The Faculty provides excellent education under appropriate management and operation.</p>																								
Activities of the Project	<p>1. Project Site: Dili 2. Main Activities: [CADETES] i) Review and development of curriculum and syllabus, preparation of lecture notes and job sheets, ii) training of teaching staff on basic mathematics and physics, fundamental engineering subjects, teaching methods, etc. [CADEFEST 1] i) Review of curriculum and syllabus, practical and research-based thesis, ii) capacity building of the faculty on management, etc. 3. Inputs (to carry out above activities)</p> <table border="0"> <tr> <td>Japanese Side</td> <td>Timor-Leste Side</td> </tr> <tr> <td>[CADETES]</td> <td>[The Project 2006-2010]</td> </tr> <tr> <td>1) Experts from Japan: 22 persons</td> <td>1) Staff Allocated: 64 persons</td> </tr> <tr> <td>2) Training in Japan: 19 persons</td> <td>2) Land and Facilities: Office space, equipment, etc.</td> </tr> <tr> <td>3) Equipment: Educational and research equipment, etc.</td> <td>3) Operation cost: Cost for workshops, etc.</td> </tr> <tr> <td>4) Local cost: Cost for invitation of other university professors, seminars, research materials, books, etc.</td> <td>[The Project 2011-2016]</td> </tr> <tr> <td>[CADEFEST 1]</td> <td>1) Staff allocated: 102 persons</td> </tr> <tr> <td>1) Experts from Japan: 40 persons</td> <td>2) Land and facilities: Office space, electricity charges, etc.</td> </tr> <tr> <td>2) Training in Japan: 31 persons</td> <td>3) Operation cost: Cost for travels, site visits, etc.</td> </tr> <tr> <td>3) Equipment: Educational and research equipment, books, etc.</td> <td></td> </tr> <tr> <td>4) Local cost: Cost for seminars, research materials, books, etc.</td> <td></td> </tr> </table>			Japanese Side	Timor-Leste Side	[CADETES]	[The Project 2006-2010]	1) Experts from Japan: 22 persons	1) Staff Allocated: 64 persons	2) Training in Japan: 19 persons	2) Land and Facilities: Office space, equipment, etc.	3) Equipment: Educational and research equipment, etc.	3) Operation cost: Cost for workshops, etc.	4) Local cost: Cost for invitation of other university professors, seminars, research materials, books, etc.	[The Project 2011-2016]	[CADEFEST 1]	1) Staff allocated: 102 persons	1) Experts from Japan: 40 persons	2) Land and facilities: Office space, electricity charges, etc.	2) Training in Japan: 31 persons	3) Operation cost: Cost for travels, site visits, etc.	3) Equipment: Educational and research equipment, books, etc.		4) Local cost: Cost for seminars, research materials, books, etc.	
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Project Period	<p>[CADETES] April 2006 to March 2010 (Extended period: April 2009 to March 2010) [CADEFEST 1] February 2011 to March 2016 (Extended period: February 2015 to March 2016)</p>	Project Cost	<p>[CADETES] (ex-ante) 290 million yen, (actual) 371 million yen [CADEFEST 1] (ex-ante) 270 million yen, (actual) 440 million yen</p>																						
Implementing Agency	National University of Timor-Leste, Ministry of Education																								
Cooperation Agency in Japan	Nagaoka University of Technology, Yamaguchi University, Gifu University																								

II. Result of the Evaluation

< Special Perspectives Considered in the Ex-Post Evaluation >

- As what was aimed as the Overall Goal of CADETES and what was aimed as the Project Purpose of CADEFEST1 can be considered as common, the two projects can be interpreted as a continuous intervention. At the ex-post evaluation, the two projects were evaluated as one intervention. For verification of effectiveness/impact, objectives and indicators of CADEFEST1 were used.

1 Relevance

<Consistency with the Development Policy of Timor-Leste at the Time of Ex-Ante Evaluation and Project Completion>

The projects were consistent with Timor-Leste's development policies, such as "Sector Investment Plan" (2004) prioritizing the education sector including higher education, and the "National Education Policy" (2007-2012) setting higher technical education and university education as one of the policy goals. Moreover, the "Strategic Development Plan (SDP)" (2011-2030) set human resource development including development of high-level engineers who could meet market needs as one of the three thrusts for the immediate goal during the period from 2011 to 2015.

<Consistency with the Development Needs of Timor-Leste at the Time of Ex-Ante Evaluation and Project Completion >

The project was consistent with Timor-Leste's development needs for an increase in the labor force with higher education and production of labor force with professional skills so that these jobs, which are mostly taken up by foreigners, would be fulfilled by national labor force.

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

The project was consistent with Japan's ODA policy toward Timor-Leste supporting education, capacity building, and institution building as one of four priority areas confirmed by the policy dialogues between the government of Timor Leste and the government of Japan in January 2005 and June 2008¹. Those priority areas sustained by the ODA Taskforce.

<Evaluation Result>

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

2 Effectiveness/Impact

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

The Project Purpose was partially achieved by the time of project completion. 77.8% of the students satisfied with the education provided by the Faculty (Indicator 1). The graduation rate of the Faculty was not verified by the time of project completion (Indicator 2), because at that time the Faculty did not have the definition of the graduation rate, that is, it was not clear whether the denominator should be the number of the enrolled students in the first grade, the registered students in the fourth grade, or the students who started the graduation research. All the subjects of the Faculty got 70% of satisfaction on average in the last two years of the project period (Indicator 3). Based on the achievement of CADETES, CADEFEST1 aimed at the capacity development of the Faculty by strengthening the faculty management system. The annual action plan was developed at each department, and the activities were implemented based on the plan.

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

The project effects have partially continued since the project completion. The Faculty started the online satisfaction survey in 2016, students' satisfaction with the lecturers has been on a decreasing trend. This may be because the crowded classrooms may have affected the teaching environment, according to the Vice Dean. The number of students increased from 152 in 2016 to 309 in 2018. On the other hand, their satisfaction with the course contents has been sustained since the project completion. Thus, it is presumed that the project effects on the classes have been sustained. Regarding the graduation rate of students (4-year bachelor) decreased. A main reason is that some students leave without formal procedures before their graduation, because they have to wait one more semester before graduation, if they finish defending their final thesis beyond the due in the previous semester. Other students drop out because they get job before completing the bachelor.

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

The Overall Goal has been achieved by the time of ex-post evaluation. For the three departments of Mechanical, Civil Engineering, and Electrical and Electronics, the total number of graduates after the project completion reached 300 in the 1st semester in 2019 (Indicator 1). One of the reasons for the delay of attainment was that, on many occasions, students had to wait until the next semester for graduation although they finished defending their final thesis within ongoing semester period. Another reason was that, due to the limited availability of devices and materials for final thesis projects in Timor-Leste, they had to be ordered and purchased abroad. In a particular case, some students who have jobs do not perform actively to graduate within the time, while, drop out system has not been implemented strictly in UNTL. 60% of the graduates have got job related to their study field (Indicator 2).

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

No other impact has been confirmed at the ex-post evaluation.

<Evaluation Result>

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

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results
Project Purpose The Faculty provides excellent education under appropriate management and operation.	1. More than 70% of the students are satisfied with the education provided by the Faculty.	<u>Status of Achievement: Achieved (Partially continued)</u> (Project Completion) - Students' satisfaction reached 77.8%, and the rate was increasing. (Ex-post Evaluation) - No data available on students' satisfaction with the faculty education. - The percentage of the students who answered that they were "very satisfied" or "satisfied" with the lecturers were 69% in 2016, 53% in 2017 to 51% in 2018.
	2. Graduation rate of the Faculty is improved.	<u>Status of Achievement: Not verified (Not achieved)</u> (Project Completion) - No data was available, because of no established definition of the graduation rate. (Ex-post Evaluation) - The graduation rate of the Faculty students (4-year bachelor) decreased from 78% in 156 to 53% in 2018.

¹ Ministry of Foreign Affairs, "ODA Databook"(2006), "ODA Databook"(2011).

	3. As a result of class evaluation, every subject gets more than 60 points (60% of satisfaction) on average.	<u>Status of Achievement: Achieved (Continued)</u> (Project Completion) - All subjects got 70% on average in the last two years. (Ex-post Evaluation) - The class evaluation of all subjects reached 70% in 2019.																									
(Overall Goal) The Faculty of Engineering, Science and Technology (UNTL-FEST) produces high-skilled human resources who can contribute to the society.	1. Number of students graduated from the Faculty with licensure (4-year bachelor) degree exceeds 300 by 2018.	<u>Status of Achievement: Achieved</u> (Ex-post Evaluation) - The total number of graduates in 3 departments for the three-year period from 2016 to 2018 was 233. Table: Number of graduates in 3 departments <table border="1"> <thead> <tr> <th></th> <th>2016</th> <th>2017</th> <th>2018</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Mechanical</td> <td>16</td> <td>17</td> <td>32</td> <td>65</td> </tr> <tr> <td>Civil</td> <td>48</td> <td>39</td> <td>29</td> <td>116</td> </tr> <tr> <td>Electrical and Electronics</td> <td>10</td> <td>29</td> <td>23</td> <td>62</td> </tr> <tr> <td>Total</td> <td>74</td> <td>85</td> <td>84</td> <td>233</td> </tr> </tbody> </table> - In addition, 67 students graduated from the Faculty in the 1 st semester in 2019 and the total number of graduates reached to the target value of 300.		2016	2017	2018	Total	Mechanical	16	17	32	65	Civil	48	39	29	116	Electrical and Electronics	10	29	23	62	Total	74	85	84	233
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2. More than 60% of the students graduated from the Faculty get job related to their field of study.	<u>Status of Achievement: Achieved.</u> (Ex-post Evaluation) - 60% of the graduates have got job related to their study field within one year from graduation (survey of June 2019).																										

Source : Terminal Evaluation Reports, Project Completion Reports, Information provided by UNTL-FEST

3 Efficiency

The total project cost and the total project period of the two projects exceeded the plan (ratio against the plan: 145% and 112%, respectively). The outputs of both projects were not fully produced as planned. Therefore, the efficiency of the project is fair.

4 Sustainability

<Policy Aspect>

In SDP, UNTL is positioned as a critical institution that is fundamental for building the country's human capital and contributing to the national development. It also mentions that UNTL would be adequately funded to allow it to effectively perform its functions.

<Institutional Aspect>

The Faculty has an appropriate structure with four departments consisting of (1) Academic Affairs, (2) Administration and Finance Affairs, (3) Students Affairs, and (4) Research and Cooperation Affairs managed by a dean and four vice deans, to promote faculty development and practical graduation research. The 4-year bachelor curriculum has been based on the national standard, and the syllabus has been developed for all subjects based on the 4-year bachelor curriculum. The Faculty has a sufficient number of teaching staff at each department such as 73 permanent staff and 1 contracted teaching staff at the Civil Engineering Department. The improvement of academic and management capacity has been continued by conducting students' satisfaction surveys, class evaluation, and research on the region needs based on the research plan. The Faculty has its own pedagogic and scientific council to improve academic capacity, and it has its own directive council to improve management capacity. The Faculty revises the curriculum and syllabi every two years. The final thesis guideline has been produced, and the curriculum revision process was undergoing as of 2019.

<Technical Aspect>

All teaching staff in the Faculty have been specialized in certain fields of study in their previous master and doctoral study which are necessary to conduct researches on regional needs and to provide guidance for graduation researches. Some management staff has limited knowledge and skills necessary for operating the faculty, according to the Faculty. Therefore, recruitment and training for new staff are proposed to UNTL by the Faculty. Training and scholarship opportunities have been provided by partners including JICA and the Camões Institute of Portugal.

<Financial Aspect>

The budget for the Faculty is not enough for research and educational activities. Budget allocation increased from 11,959 US dollars (USD) in 2015 to 51,260 USD in 2016. However, the budget decreased to 34,560 USD in 2017 and 10,880 USD in 2018. In 2019, the budget allocation has increased to 47,000 USD, since the number of the students increased. However, most budgets are allocated for staff personnel and fuel for generators.

<Evaluation Result>

Therefore, there are some challenges in the technical aspect and in the financial aspect of UNTL, and the sustainability of the project effects is fair.

5 Summary of the Evaluation

The Project Purpose was partially achieved, and the project effects have partially continued. Students' satisfaction has been improved, while the graduation rate has decreased. As for sustainability, UNTL has sustained its activities to teach students and to support the graduates to get employment related to their field of study with sufficient number of teaching staff and sufficient teaching capacities, but it has still had needs for improvement of some management capacity, and it has faced budget constraints that limit their research and education activities. As for efficiency, both the total project cost and the total project period of the two projects exceeded the plan.

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

III. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

- It is recommended to the Faculty to collect information from students at the graduation and post-graduation (six months and one year after the graduation) in order to create a concrete database on the number of students from the registration up to the graduation. The current online survey system can be developed to cover these survey items.



Interview with the Vice Dean of FEST



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