

CHAPTER 3 PROJECT EVALUATION AND RECOMMENDATIONS

3.1 Project Effects

The effects of and degree of improvement of the present situation due to the implementation of the Project are shown in Table 3-1.

Table 3-1 Effects of the Project

Present Situation and Problems	Measures Under the Project	Effects and Degree of Improvement
<p>The East Timor National University was opened in November, 2000 with five faculties (Education, Economics, Social Sciences, Engineering and Agriculture) using the rehabilitated school and government office buildings in Dili.</p> <p>The Faculty of Engineering is the successor of the former Poly-tech and provides three year courses (D3 level) for electrical, mechanical and civil engineering. At present, however, the courses only consist of lectures and there is no prospect of the continuation of experiments and practical training.</p>	<ul style="list-style-type: none"> • Rehabilitation of the former Poly-tech campus buildings (Hera campus) Development of infrastructure • Provision of equipment for practical education in view of the full implementation of the curriculum 	<ul style="list-style-type: none"> • In the short-term, it will become possible for local students to receive D3-level engineering education in East Timor as the Project will develop the teaching facilities to produce 150 graduates/year (50 each from the electrical, mechanical and civil engineering courses) who are expected to become core middle level technical engineers and science and engineering teachers in for which there is currently an urgent demand in East Timor. • At present, East Timor has no genuine testing machinery, except that of a temporary nature, which is essential for building and construction work. As the equipment to be procured under the Project includes concrete and asphalt strength test machine and soil test machines, these can be used as a public laboratory which will be able to issue official certificate of the test result to improve the technical capability of the construction industry in East Timor.

3.2 Recommendations

The suitability of the Project for implementation as a grant aid project of the Government of Japan is verified as the implementation of the Project will have many positive effects as described earlier. The Project will be more smoothly implemented if the ETTA which is currently facing a number of tasks, including the establishment of the constitution, to achieve full independence in May 2002 and East Timor National University can quickly improve or address the following points.

(1) Finalization of Organization of the Ministry of Education, Culture, Youth and Sports
While the Second ETTA organization which was born in September, 2001 is making strenuous efforts to achieve the planned full independence, including the establishment of the constitution, the internal organization of the Ministry of Education, Culture, Youth and Sports has not yet been fully established. It is assumed that the Division of Higher Education will be responsible for the East Timor National University, controlling the educational policies, personnel affairs and budget, etc. It is essential that the internal organization of the Ministry be quickly finalized so that the University Headquarters and the Faculty of Engineering can work together to deal with such matters as decisions on educational policies, distribution of the university budget and the recruitment of new teachers and administrative staff, all of which are essential for the smooth running of the University.

(2) Funding for Operation and Maintenance Budget
The ETTA greatly depends on foreign assistance to fund its annual budget and, therefore, its fiscal situation is quite tight. Although a budget of US\$ 1,591,000, a 20% increase on the previous year, was requested for the University for FY 2001/02, the amount approved by the UNTAET/ETTA of US\$ 1,320,000 is the same as 2000/01.

Given the many plans which require adequate funding, such as improvement of the facilities of each faculty and the increase of the number of teachers, the budgetary situation of the University is expected to be very tight. The Faculty of Engineering aims at securing the services of 20 teachers (full-time and part-time) for each department, totalling 60 (an increase of 10), by the second half of 2002 when the campus rehabilitation work is due to be completed. Extra funding will, therefore, be required to meet the increased personnel cost. When the Faculty of Engineering moves to the new campus with the Electrical, Mechanical and Civil Engineering Workshops becoming usable, an increase of the operation and maintenance cost (US\$ 32,000 – US\$ 42,000/year) for the buildings, building services and equipment will be necessary and it will be an important task for the Faculty of Engineering to secure the necessary funding. The priority task is, therefore, to secure adequate funding for education in the government budget.

(3) Appointment of and follow-up Education for Teachers of the Faculty of Engineering
The syllabus based on the curriculum prepared by the Faculty of Engineering demands 20 teachers for each of the three departments, totaling 60 teachers. At present, 50 full-time and part-time teachers have been appointed, making the recruitment of an additional 10 teachers the first step to implementing the curriculum of each department. Because of the extreme scarcity of people with the necessary teaching qualifications in East Timor, however, the recruitment of suitable teachers is difficult, posing a problem in regard to the quality of education. The second step is to provide follow-up education for all teaching staff to improve the quality of teaching by means of the upgrading of teachers. This follow-up education may be provided in the following manner.

1) Study or training abroad

- 2) Provision of guidance by foreign experts in East Timor
- 3) Creation of a self-learning environment by consolidating specialist books and AV teaching materials

With the implementation of the above two steps, the recruitment of the necessary personnel will be possible and the level of education will be improved.

(4) Preparations for Opening of the Campus

The quality of education can only be guaranteed by appropriate preparatory work prior to the opening of the campus in regard to arranging the necessary personnel, facilities and equipment. The main components of this preparatory work are listed below.

- 1) Establishment of the curriculum
- 2) Finalization of the syllabus for the implementation of the curriculum
- 3) Preparation of textbooks and teaching aids in line with the finalized syllabus

The teachers and administrative staffs to conduct the above preparatory work, a sufficiently long preparatory period is necessary because some of the teaching staff have no previous teaching experience or lack the necessary qualifications. The recruitment and training of teaching and administrative staff for each department must, therefore, be completed as soon as possible to make the Hera Campus ready for opening. As the equipment will require constant maintenance, the recruitment and training of maintenance staff is also essential.

(5) Supplementation of Operation and Maintenance Budget

The charging of an appropriate tuition fee and the development of new income sources using the facilities and equipment should be considered to supplement the operation and maintenance budget of the Faculty of Engineering. Possible new income sources are listed below.

- 1) Rental of the classrooms and canteen when not in use to outsiders
- 2) Use of the classrooms and workshops for seminars for the public
- 3) Use of the classrooms and workshops for skill upgrading seminars for professionals in private and government sector.
- 4) Provision of consultation services for the electrical, machine and civil engineering industries
- 5) Provision of testing services as a public testing organization using the concrete, asphalt and soil testing equipment

Various measures should be prepared through cooperation between staff members and students to publicize the above activities to supplement the operation and maintenance budget.

(6) Assistance for Employment Service and Employment Statistics

Employment is a major concern for graduates as East Timor lacks many industrial activities. According to the interview results, no employment service was provided by colleges in the period of

Indonesian rule and no statistics were available on the employment of graduates. The provision of an employment service and employment statistics can provide good motivation for young people thinking of applying to the Faculty of Engineering. It is, therefore, important for the Faculty of Engineering to establish a job placement system through collaboration with various government offices, economic and industrial circles, private organizations, NGOs and NPOs, etc. The preparation of employment statistics is also very important as such statistics constitute concrete data indicating the degree of contribution by the Faculty of Engineering to the economy and society of East Timor.

(7) Language Used for Faculty of Engineering

Portuguese has now been decided as the national language to be used for education. At present, English the mainstream language for technical terminology in higher education. Based on this reality, language education in East Timor should be made more flexible so that it is unnecessary for those East Timorese hoping to receive higher education of world standard to learn English from scratch on admission to university or college. In order to avoid such a waste of time, the introduction of a special measure to allow teaching in English for specialist higher education subjects should be encouraged.

3.3 Appropriateness of the Project

After the result of this referendum favoring independence was immediately followed by widespread violence, looting and arson by force of integration who against the result of referendum. Meanwhile, the withdrawal of Indonesians who used to occupy most of the positions of middle class engineers, managers and technical staff in East Timor prior to the referendum caused the collapse of public services, including legal, health, education and community services, provided under Indonesian rule. The evacuation of middle-class engineers and managers from East Timor makes difficult the training of public servants in technical fields and engineers in the private sector, who will play a crucial role in national building in the coming years, essential. The UNTAET was established for administering the transition of independence together with ETTA and many international staffs were assigned for compensating the evacuated people.

The general election on 30th August 2001 determined the composition of the political parties of the Assembly for the formulation of the Constitution, creating the Second Transitional Administration of East Timor with cabinet positions occupied by East Timorese. A shift to appoint East Timorese nationals to administration positions is also in progress. As foreign staff working for the UNTAET have begun to return to their own countries, it is said that the entire administrative work will have been transferred to East Timorese staff by February 2002. The recruitment of new staff, however, is based on somewhat ambiguous criteria, as the strict application of the official recruitment criteria will not enable the filling of the vacant positions. However, the inadequate academic career and experience of some of the newly appointed administration officials are believed to pose a threat to the administrative efficiency of the Administration of East Timor. The Project aims at improving of the facilities and equipment of the Faculty of Engineering of the East Timor National University in order to train homegrown engineers to alleviate the shortage of human resources and is expected to have the following effects.

- (1) In the short-term, it will become possible for local students to receive D3-level engineering education in East Timor as the Project will develop the teaching facilities to produce 150 graduates/year (50 each from the electrical, mechanical and civil engineering courses) who are expected to become core middle level technical engineers and science and engineering teachers in for which there is currently an urgent demand in East Timor.
- (2) In the medium-term, the graduates of the Faculty of Engineering who have mastered the theory and practical ability will grow up to become core engineers and managers and their positive contribution to the improvement of administrative services and industrial development will bring about the economic development of East Timor.
- (3) East Timor has no genuine testing machinery, except that of a temporary nature, which is essential for building and construction work. As the equipment to be procured under the Project includes concrete and asphalt strength test machine and soil test machines, these can be used as a public laboratory which will be able to issue official certificate of the test result to improve the technical capability of the construction industry in East Timor.

3.4 Conclusion

The suitability of providing a Japanese grant aid to finance part of the Project has been confirmed as the Project is expected to produce significant effects described in this Report and to contribute to the fostering of core engineers and managers with the engineering background who are scarce at present in East Timor. Moreover, the East Timorese side has been improving the operation and maintenance system of the Project even though the current situation in terms of manpower and funding is not fully sufficient. It is expected that the said system will be in place around the time of completion of the work under the Project.