

## Summary of Evaluation

<b>1. Outline of the Project</b>	
<b>Country :</b> Fiji (12 USP member countries)	<b>Project title :</b> Project of the Information and communication Technologies (ICTs) Capacity Building at the University of the South Pacific
<b>Issue/Sector :</b> ICT	<b>Cooperative scheme :</b> Project-type Technical Cooperation
<b>Division in charge :</b> Social Development Dept. Group II, Information and Communication Team	<b>Total cost :</b> 320 million Yen * Not defined.
<b>Period of Cooperation</b>	2002.7.1~2005.6.30
	<b>Partner Country's Implementing Organization :</b> University of the South Pacific (USP)
	<b>Supporting Organizations in Japan :</b> University of Electro-Communications、 National Institute of Multimedia Education (NIME)、 University of the Ryukyus、 National Institute of Information and Communications Technology、 Ministry of Internal Affairs and Communications

### 1-1 Background of the Project

The University of the South Pacific (USP) was co-founded as international university in 1969 by 12 member countries of the South Pacific region. Since its foundation, USP has adopted the Distance and Flexible Learning (DFL) actively. In 1998, USP received a grant aid from the Japanese government titled "University of South Pacific Communication System Improvement Plan" and created the USPNet with the cooperation of the governments of Australia and New Zealand. As the result, distance education became interactive between the hub center (located at the main campus in Suva, Fiji) and remote centers in the 12 member countries.

Afterwards, USP requested upgrading of the equipment of the USPNet and capacity development of the computer science field of the university. Base on the discussion between the two sides in June 2002, the "Information and Communication Technologies (ICTs) Capacity Building at the University of the South Pacific Project" was launched in July 2002, with a three-year implementation period. The Project contained three components, namely, Computer Science (CS) component, Distance and Flexible Learning (DFL) component, and IT Research and Training (IT R&T) component.

### 1-2 Overview of the Project

#### (1) Overall Goal

USP is enhanced as a center of educational excellence for human resource development through the qualitative and quantitative improved education service.

#### (2) Project Purpose

More students will receive and improved educational experience through the enhanced IT capacity of USP.

#### (3) Outputs

##### 1. CS component

More students will take various up-to-date CS courses under the tutelage of capable academics, both in distance and face-to-face mode.

## 2. DFL component

More external students will take better DFL courses, particularly using IT.

## 3. IT R&T component

Short-term model training courses will be implemented based on research on IT utilization and needs in the South Pacific Region.

### (4) Inputs

Japanese side :

Long-term Expert	4	Equipment	97 million Yen
Short-term Expert	27	Local cost	74 million Yen
Trainees received	8	Others	149 million Yen
		Total	320 million Yen

USP side :

Counterpart	49	Local cost	76,290 Fiji dollar
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Land and Facilities:

【Laucala campus】 Project office, CS Graduate school Lab、 CS Large Lab、 CS Small Lab, Multimedia Lab、 Information Technology Service Lab、 Center for Education and Learning Technology (CELT) Lab、 4 meeting rooms

【Lautoka campus】 PC Laboratory                      【Labasa campus】 PC Laboratory

【Emalus campus】 Multimedia workshop              【Tonga campus】 PC Laboratory

【Alafua campus】 PC Laboratory

## 2. Evaluation Team

<b>Evaluator</b>	Koichi Motomura, IC Net Limited	
<b>Field Study Period</b>	2009.3.23~2009.4.12	<b>Type of Evaluation:</b> Ex-post Evaluation

## 3. Achievement after the Completion of the Project

### 3-1 Achievement of Project Purpose

Verifiable Indicator 1	<p><u>Increase in the number of qualified graduates who have up-to-date and practical IT knowledge and skills: 130 graduates/year in 2000 to 195 graduates/year in 2005 (50% increase)</u></p> <p>→ The number of graduates of CS/IS degree courses are 261 in 2004 when the terminal evaluation was conducted (104% increase). Year 2005 onwards, the number tends to be increased and became 285 in 2008 (about 120 % increases).</p>
Verifiable Indicator 2	<p><u>Development of capacity of Distance and Flexible Learning course development utilizing multimedia technology (Procedure of DFL development is established and courses are developed just by staff)</u></p> <p>→ It was confirmed that preparation of DFL development procedure (for the blended e-learning course) was completed by the end of the project. The number of courses that can be delivered by DFL was about 200 courses at the terminal evaluation, but has been increased to about 350 courses at the time of this ex-post evaluation.</p>

Verifiable Indicator 3	<p><u>Development of capacity of IT research and training (Many qualified research proposals inquiring utilization of IT for socio-economic development are collected at USP, and the result of researches are published successfully and utilized for short-term model training courses and generating awareness.)</u></p> <p>→ Out of eight proposals approved during the project period, six were published and remaining two were also published by the end of the project. No information about short-term model training courses was obtained.</p>
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### 3-2 Achievement of Overall Goal

Verifiable Indicator 1	<p><u>Increase in the number of applicants for both higher education and continuing education</u></p> <p>→ Although the number of applicants was not confirmed, the number of the students has continued to rise from 2005 to 2007. In addition, the number of students of continuing education also seems to be on the increase.</p>
Verifiable Indicator 2	<p><u>Increase in the number of offering of the qualified jobs for graduates</u></p> <p>→ CS/IS degree graduates are highly appreciated in general, and many graduates are employed by IT related companies in USP member countries and others, educational institutions, and by major banks, and so on .</p>
Verifiable Indicator 3	<p><u>Increase in the number of papers read at international meetings and published with international academic journal</u></p> <p>→ At least 5 papers are made in public at international conference, and relatively large-scale research project on IT was also implemented.</p>

### 3-3 Measures Taken Regarding to the Recommendations of the Terminal Evaluation

Use and Maintenance of the equipment provided by the Project	In general, equipments provided by the Project are used effectively and maintained properly. Out-of-date equipments including PCs are replaced appropriately.
Urgent upgrade of the USPNet	In Fiji, network connection has been improved by the “ USPNet Enhancement Project” and linkage with ARNET (Australian Academic Research Network). However, in other eleven USP member countries, traffic capacity is still narrow and the delivery and receipt of data is still limited.
Establishment of IT grant research program	Establishment of the program was not confirmed.
Cooperation with the IT industries and the societies	Cooperation with the IT industries has been made through the “Attachment system,” Industry Liaison Group (ILG), ICT Park project, etc.. Specific examples or cases of cooperation with the society are lacking.
Full utilization of the outputs for the development of Japan-Pacific ICT center	Any fact that the outputs are used was not confirmed.

## 4. Results of the Evaluation

### 4-1 Summary of the Evaluation Results

#### (1) Confirmation of Relevance

In terms of human resource development of the ICT sector and its support, the project is in line with the “Pacific Islands Information and Communication Technologies and Strategic Plan” and the Japanese cooperation rolling plan for Fiji. In addition, it was confirmed that the demand for human resource in the ICT sector is highly prospective. Furthermore, support of Japan which has good experience in this field has increased the value to the CS/IS courses and the DFL courses of USP. Therefore, the relevance of the project is regarded to be “high.”

#### (2) Confirmation of Effectiveness

The project attained the project purpose by the end of the project. However, the association between the project purpose and the indicator 3 are not necessarily clear. Since IT R&T by itself does not automatically elevate the human resource development, it is necessary to establish a mechanism to reflect the result of IT R&T on curriculum, and to develop the co-research activities with the industry sector and other research institutions. As described above, since there is a question about the appropriateness of one verifiable indicator, effectiveness of the project is considered to be “satisfactory.”

#### (3) Confirmation of Efficiency

As for the inputs of Japanese side, all the equipment matched the needs and technical level of the USP side. There is some question about appropriateness of inputs timing and quantity of the Japanese expert of “instructional design,” which is very important for the development of DFL courses. As far as the inputs by USP side is concerned, it was confirmed that the high commitment and ownership of the senior managers of USP, but the temporal vacancies of senior management positions after coincident resignation of staff members in 2003 caused some negative effect to the efficiency of the project, which was stated in the terminal evaluation. Based on these facts, efficiency of the project is considered to be “satisfactory.”

#### (4) Impact

The positive changes in expected impacts were observed. However, degree of the contribution of the project to the change regarding the verifiable indicator 1 is questionable. The increase in number of DFL students is not significant compared to the degree of increase in the number of USP students as a whole. Other impacts observed include that Information Technology Service (ITS) of USP could come to provide five types of academies as professional training courses, and students have been on the increase as a whole. As a conclusion, impact of the project is considered to be “low.”

#### (5) Sustainability

Sustainability is considered to be “high” in terms of technical, institutional, financial, and policy aspect.

##### Technical Aspects

Most of the CS/IS and the Law courses now can be delivered by online basis. Introduction of Moodle, a learning management system, university wide started in 2007 by its own effort. The ex-counterparts are now taking root in USP, and actively conduct technical transfer to the other staff members. The future challenges include followings. 1)

CS/IT has to extend its training capacity so that it can respond to the human resource needs of the industry sector; 2) improvement of the network environment; and 3) measures have to be taken to alleviate drop-outs of the DFL students.

#### Institutional Aspects

Based on the experience of the project, USP developed another standardized procedure of DFL courses development at Emalus campus. This can be seen as an evidence of institutional capacity improvement. On the other hand, quantitative and qualitative improvement is necessary for the local tutors.

#### Financial and Policy Aspects

The financial situation of USP, which continued to make losses, has been on a track to recovery since 2008. Supports from donors have been stable as well.

### **4-2 Promoting Factors**

- Improvement in the network environment of USP enabled better use of DFL courses and introduction of the Moodle system..
- National policies for promotion of information technology in Fiji, including the “Policy Directions and Strategies for the Development and Growth of Information and communication Technology in Fiji” (2004) and the liberalization of service license for communication service (2008) boosted the demand for human resource in ICT sector.
- Highly motivated ex-counterparts and effective human resource management worked positively for the sustainability.

### **4-3 Disturbing Factors**

- Although there are some challenges on sustainability for further development, there are no significant disturbing factors.

### **4-4 Conclusion**

The project maintains high relevance with regard to the political priority and the needs of the IT industry. The project achieved planned objective of the project, and some impacts are observed. Sustainability of the project effect is also high, considering the following fact that most of the ex-counterparts are still at the university playing important rolls in CS/IT and DFL of USP; equipment provided during the project is well managed; moodle, a standard management system of DFL, has been introduced.

On the other hand, interrelationship among the three components of the project, the project purpose and the overall goal does not seem to be clearly designed. There is no clear linkage between the effect of the project and the increase in the number of USP students in these years. Another point to be mentioned is on dispatch of the Japanese expert on instructional design. The dispatch of the expert was very late and the period of assignment was very short. This may indicate that the project prioritized physical preparation of DFL courses and qualitative improvement of the course, which instructional design can contribute much, came after.

For the further improvement of the USP, there are some challenges including provision of faster network system between Fiji and the other countries, and additional support to stop the drop-out from DFL courses.

#### **4-5 Recommendations**

(1) Improvement of the Network environment:

USP should investigate the current situation of the network environment, and prepare a medium to long-term development plan.

(2) Improvement and enhancement of DFL:

In order to improve educational effect of DFL, USP should enhance the knowledge and skill of instructional design. It also should extend the use of Moodle for better teaching management and student evaluation. Preventive measures for the drop-outs also have to be fostered. Promoting the knowledge sharing by recovering or reconstructing the Multimedia database is another issue.

(3) Curriculum development and teacher training of SCIMS:

USP should improve the curriculum on software engineering and the net centric computing to match the needs of the ICT industry.

(4) More cooperation among the donors:

USP and donors should try to encourage the effective coordination among the stakeholders.

#### **4-6 Lessons Learned**

(1) Importance of overall plan:

Management of a project of ICT sector needs a well prepared overall project design, even though flexible operation is important as well.

(2) Significance of the instructional design:

For a project regarding distance and flexible learning, the instructional design, which deals the effectiveness, efficiency, and attractiveness of curriculum and teaching materials, should be valued. Accordingly, timing and quantity of inputs for this area should be carefully planned.

(3) Common understanding on PDM among the stakeholders:

Common understanding on PDM including project purpose and scope of responsibility should be thoroughly set up in the implementation process.

(4) Conscious activities to foster participation from the industry:

Especially for the similar project regarding higher practical education, activities and necessary inputs to promote participation from the relevant industry should be considered from the planning stage.

(5) Information management:

Project information must be managed and maintained properly. One of the examples is by means of using the special web site.