

A large, stylized white letter 'V' is positioned on the left side of the page, partially overlapping a blue abstract graphic. The graphic consists of several thick, curved blue lines that sweep across the top and right sides of the page, creating a sense of movement and depth. The background is white.

# Vanuatu

## ICT USE IN EDUCATION

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### INTRODUCTION

*Vanuatu lies northeast of Sydney, Australia, and was known as New Hebrides until 1980 when it gained independence from France and Britain. It consists of a Y-shaped chain of some 80 islands spread over 848,000 square kilometres of sea and a total land area of 12,190 square kilometres. There are active volcanoes on Tanna, Ambrym, Lopevi, and Gaua. The indigenous people are known as ni-Vanuatu.*

*The total population of close to 200,000 (2003 estimate) speaks Bislama (the national language), as well as English and French*

which are the official languages and also the languages of formal education. Vanuatu has around 113 indigenous vernacular languages in current usage and the government recently introduced a policy to teach the early stages of basic education in vernaculars, especially in rural Vanuatu.

The main island is Efate where the administrative centre Port Vila is located. Other large islands with population concentrations are Santo (the largest), Malekula (second largest), Tanna, Pentecost, Erromango and Ambrym. The country produces copra, fish, beef, cocoa, coffee, kava, timber and other wood products, and a limited number of manufactured goods. Tourism is a vibrant industry. However the subsistence sector continues to play an important role in the overall mechanics of the economy. The national currency is the Vatu.

Vanuatu is one of 12 member countries of the University of the South Pacific (USP), and therefore has access to the facilities of that institution including the USP Centre on the Emalus campus in Port Vila, Efate, and through it to the USPNET satellite system.

### National policies, strategies and programmes

The 1999 Education Master Plan identifies, in broad terms, the need to integrate technology education with general secondary education. It further stipulates as Action 3 in Annex 3 the following:

The government will introduce a comprehensive technology education programme in years 9 to 12 (grade 3 to 6) of general education. The technology programme should be holistic in its consideration of materials, processes and systems applied to technologies such as food, graphics, design, information and communications.

Furthermore, the plan makes reference to some previous expert consultations with New Zealand, and also to the possibility of seeking funding assistance for further information and communication technology (ICT) developments as follows:

Because of New Zealand's experience with technology programmes in its general education system and its earlier involvement in technology issues in Vanuatu, the government will approach NZ to determine its interest in the programme.

It is nonetheless also generally acknowledged that other partners, including the European Union (EU), support the idea of assisting the introduction and use of ICT in the education sector. This is demonstrated by a recent study funded by the EU to develop an "Education: Information and Communication Technology Strategy Plan" (May 2003).

Up to March 2002 there was no clear national ICT policy, but there was legislation that covers access rights, copyright and ICT misuse. However, there was no centralised budget for ICT, and, according to a statement from the Vanuatu Broadcasting and Television Corporation (VBTC), the government is not promoting e-governance. Nevertheless, the government's Telecom development plans aim to "increase customer access and [the] number of customers." However, here too VBTC is skeptical stating that "the government is not organised at a fiscal level to produce a development plan for Internet services. Things may not develop in the next two years."

There is, however, some activity in government that includes building up computerised services, digitising government documents, providing subsidies for computer purchases, training government officials in ICT and reinforcing ICT training in schools, training institutes and universities.<sup>1,2</sup>

### Current level of ICT access and use

The infrastructure in place supports telephone, facsimile, Internet access, e-mail and data transmission services. Telecom Vanuatu Ltd (TVL) (see [www.tvl.net.vu](http://www.tvl.net.vu)), a private sector monopoly, had 4,500 customers in 2002 and 1,020 Internet customers. But with increased awareness of the need for technology for business and education, these customer numbers more than doubled in 2003.<sup>3</sup> TVL, jointly owned by government, Cable and Wireless, and France Cables et Radio, provides some regulatory services. It has excellent infrastructure, extensive use of solar power and provides very good and affordable Internet connectivity.<sup>4</sup> With its effective rural telecommunication development programme, TVL has so far equipped most major islands of Vanuatu with telephone facilities.

Wireless (mobile) telephony was introduced in 2002 and demand for it is expanding in urban Port-Vila and Luganville. It will soon extend to other outer island centres. The rural electrification programme of the French-owned private company, UNELCO, also plays a catalytic role in stimulating the expansion of telecommunication infrastructure and, hence, the ICT development.

Vanuatu has 405 primary schools, 65 secondary schools and a handful of tertiary institutions that include the Teachers' College, the Vanuatu Institute of Technology (VIT), the School of Nursing, the Maritime College and USP. A new College of Agriculture is currently being built on Santo, funded by the Peoples' Republic of China.

In 2002, between 25 per cent and 50 per cent of the population had access to the Internet at home or through telecentres, while more than 75 per cent had access through workplaces, Internet cafes and government institutions. However, access through schools and public libraries is

much lower. Again through its education-friendly programme, TVL is offering the “Lagoon School” Internet package to schools that request it. Internet access is free during specified official working hours where it is available.<sup>5</sup>

### *Primary Education*

The major population centres of Port Vila in Efate island, Luganville on Espiritu Santos, Isangel on Tanna, Lakatoro on Malekula, and Longana on Ambae, have some computers available for administration. Primary schools are slowly introducing computers at the initiative of their school committees, as the meagre funding allows.

### *Secondary Education*

To date, all government-owned and some other secondary schools have computer laboratories, and most schools (both primary and secondary) use ICT facilities for administration.

### *Post-secondary Education*

**The USPNet.** A satellite service for distance education is provided through USP for students studying there. The university’s Emalus campus in Port Vila comprises the USP Centre in Vanuatu, the School of Law, and the Pacific Languages Unit. University degree, diploma and vocational programmes, through both distance education and onsite courses, are available to all eligible students throughout Vanuatu. Distance education students have access to the tele-instruction in Port Vila and it is anticipated that the same facilities will be provided to the two subcentres in Luganville, Santo, and on Tanna, with instruction through USPNet (the communications network of the university). This will effectively enable Vanuatu students to complete a large proportion of the courses for the university programmes without having to attend classes on other campuses. Negotiations between the university and TVL are underway to enable this extension of USPNet to Santo and Tanna.

**Meteo ICT project.** A project is currently being developed for funding by the US authorities through the meteorology office to provide Internet facilities through schools and communities, with the aim of assisting the latter to monitor the weather and meteorological conditions, and to provide preparedness measures in times of natural disasters.

**Police Crime and Disaster Management Project.** A similar proposal, manned by the police authorities and designed to help maintain law and order, is in place in communities in provincial areas with access to schools, which assist with monitoring activities.

**Broadcast technologies.** Radio and television are widely used in Vanuatu, but there is currently very little in terms of distance education using these modes. This is an area

needing further study and assistance for effective use of these technologies for education.

## Major initiatives

One major initiative was the World Health Organization (WHO) project on training health workers. This involved establishing a computer lab to train medical personnel, beginning with distance learning for nurses. Completed in October 2003, the lab has 10 state-of-the art PCs, a server, web filter, and printer. Two training workshops have been built in as part of the project, the first one covering the basics of Windows XP and the second covering intermediate applications.

Other initiatives include the following:

- Satellite links through the USPNet;
- Internet cafe available in Vila, and Luganville (Santo); and
- USP Centre with its own computer labs in Vila and Luganville with Internet access. (A new lab is being developed on Tanna in collaboration with the TAFEA provincial government council.)

## Examples of training

- Telecom staff have received basic, intermediate and advanced computer training while VBTC staff have attended journalism training workshops.
- The USP Centre has provided continuing education computer courses for the public at large. The courses offered range from basic computer awareness to the use of e-mail and Internet, PowerPoint and Publisher. More advanced professional training for programmers and systems administrators was also offered last year.
- The VIT also provides computer courses to the public as part of its adult education programme.

## Constraints on the use of ICT

The following constraints were identified at the start of 2002:<sup>6</sup>

- Lack of locally qualified technicians and systems administrators;
- Limited technical support;

- Cost of equipment;
  - Unreliability of power supply, poor quality of Internet connections, high cost of telecommunications, internally and externally;
  - Lack of access to telephone networks;
  - Lack of skilled support services;
  - Limited bandwidth; and
  - High access charges.
- Technical support for the government broadcasting system;
  - Standardised technical training for government staff in applications and systems; and
  - Capacity-building in distance education for the Ministry of Education.

### NOTES

- 1 “Internet Infrastructure and e-Governance in Pacific Islands Countries” (UNESCO, March 2002), Appendix 15. This information was obtained from a survey of the VBTC, Telecom Vanuatu Ltd, and the Ministry of Lands and Natural Resources.
- 2 See the Asian Development Bank report TA REG 5990 “Information and Communication Technology in the Pacific”, June 2002.
- 3 See note 1 above.
- 4 See note 2 above.
- 5 See note 1 above.
- 6 See note 1 above.
- 7 See note 1 above.

## Analysis

Priority areas for Vanuatu have been identified as capacity-building in distance education, strategic planning for ICT in government and government-wide applications training in ICT.<sup>7</sup> A comprehensive training programme for local experts and technicians would be helpful, as well as assistance in the following areas:

- Community radio systems for basic skills and education for remote villages;