

# **CONSTRAINTS OF ELECTRONIC PUBLISHING IN DEVELOPING COUNTRIES: SPC'S EXPERIENCE IN THE PACIFIC ISLANDS**

**ANDRÉ CAPIEZ**

Manager, Publications Section, Information and Communication, Secretariat of the Pacific Community (SPC)  
BP D5, 98848 Noumea Cedex, New Caledonia  
AndreC@spc.int

In contrast to highly developed countries in North America and Europe, what are the specific constraints to effective information delivery in developing countries? Is electronic publishing better suited to information dissemination than print materials for these less developed countries?

Drawing on the practical experience of the Secretariat of the Pacific Community (SPC) in the service of 22 Island countries and territories of the Pacific region, this paper provides an overview of the situation and the electronic information and communication issues in the Pacific region.

As an international organisation serving 22 Pacific Island countries and territories in the fields of marine, land and social resources, SPC needs to disseminate technical and grassroots information to its members and target groups throughout Melanesia, Micronesia and Polynesia. Effective information delivery is therefore a priority of the organisation. Because of the Pacific's unique geographic and development constraints, such as small populations spread over many islands with vast ocean distances, it would appear that electronic publishing is particularly well suited to the effective dissemination of information. But is that really the case and how do current development constraints impact on electronic publishing in the Pacific Islands region?

This presentation attempts to address the effectiveness of electronic publishing and information delivery in the developing Pacific islands, drawing on SPC's experience. It looks at the current situation in the light of existing initiatives and the current trend towards a regional approach aimed at improving electronic information access in the Pacific through the development of information and communication technology and the adoption of regional policies.

Key words: developing countries; Pacific islands; SPC; constraints; information delivery; dissemination; communication; Internet; ICT

## **INTRODUCTION**

In contrast to highly developed countries in North America and Europe, what are the constraints to effective information delivery in developing countries? Is electronic delivery of information the solution to geographic isolation and high distribution costs of printed materials? How do local development constraints impact on electronic publishing?

Drawing on the practical experience of the Secretariat of the Pacific Community (SPC) in the service of 22 Island countries and territories of the Pacific region, let us consider the situation and the electronic information and communication issues in the Pacific region, and the effectiveness of electronic publishing and information delivery in the developing Pacific islands.

As an international organisation serving 22 Pacific Island countries and territories in the fields of marine, land and social resources, SPC needs to disseminate technical and grassroots information to its members and target groups throughout Melanesia, Micronesia and Polynesia. Effective information delivery is therefore a priority of the organisation. Because of the Pacific's unique geographic and development constraints, in terms of population, geography, and social and economic development, it would appear that electronic publishing is particularly well suited to the effective dissemination of information. But is that really the case?

## **THE PACIFIC ISLANDS**

Within the Pacific region, the geography, populations, cultures, economies and politics of the 22 Island countries and territories are extremely diverse.<sup>1</sup> The Pacific Islands are separated into the three sub-regions of Melanesia (west), Polynesia (southeast) and Micronesia (north), based on their ethnic, linguistic and cultural differences. A 'snapshot' of the Pacific Islands can help us better understand the benefits organisations such as SPC provide, and the obstacles they face in the delivery of information through print and electronic documents

Spread over 30 million square kilometres, more than 98 per cent of which consists of ocean, the Pacific region is vast. Of its 7500 islands, only about 500 are inhabited. This isolation complicates administration, communication, marketing and export of agricultural and fishing products and the provision of basic services in health, education and training. The ocean, however, has played a positive role as a natural barrier against the spread of human and plant diseases and pests, even

though this is changing fast with modern transport. These distances have a negative impact on the cost and speed of delivery of traditional information delivery materials by print. These distances also have an impact on the cost of modern communications on which electronic information relies.

The islands themselves feature great geographical diversity. Papua New Guinea accounts for 83 per cent of the land area, while Nauru, Pitcairn, Tokelau and Tuvalu are each smaller than 30 square kilometres. Some countries and territories, such as Nauru and Niue, are compact and consist of only one island; others, such as French Polynesia and the Federated States of Micronesia, include more than a hundred islands, which are spread out over enormous distances. In terms of physical geography and natural resources, the Melanesian countries tend to be large, mountainous and volcanic (with rich soils, exploitable mineral deposits and plentiful marine resources), while the Polynesian and Micronesian nations are smaller: Kiribati, Marshall Islands, Tokelau and Tuvalu consist of low-lying atolls, only one or two metres above sea level. The smaller volcanic islands such as the Cook Islands, parts of the Federated States of Micronesia, Tonga and Samoa, have some fertile land, but both living and non-living natural resources are mainly confined to the ocean. This geography plays a major role in the development problems of the islands. High islands have good soil for agriculture and running water, while the low islands don't. All Pacific Islanders attach great cultural importance to land, and three out of four Islanders still live a subsistence life in rural areas with no access to any means of electronic information delivery.

Just as varied as the geography of the Pacific Islands are the populations and demographic trends in the region, 2 even excluding the extremes of Papua New Guinea (5 million people) and Pitcairn (47 people). The total population of the region was estimated at 7.5 million for 2000 and, even using a medium projection, the projected total population for the Pacific in 2050 is 16.1 million. 3 Most of the increase is in Melanesia, which has one of the world's highest growth rate, but Polynesia's growth rate of 1% is below the world average of 1.3%, because of high levels of emigration to countries on the Pacific rim. The generally small populations are affected by international migration, and more Cook Islanders, Niueans and Tokelauans live overseas than on their home islands. Islanders living overseas have better access to Internet and electronic information than their relatives living in their home countries.

Although the region is home to just 0.1 per cent of the world's population, it is also home to one third of the world's languages, with over 700 spoken in Papua New Guinea alone. For all Pacific Islanders, English and French are "trade" and education languages but not their native tongues. Publications (whether in print or electronic) targeted at community level and still produced mostly in English or French must take this factor into consideration.

Regional social, economic and environmental factors, coupled with global changes, have had a significant impact on the health and well-being of many island countries and territories. These include a changing global environment, the relative ease and availability of modern travel, and overpopulation. Over the last 30 years, changes in diet and lifestyle in the Pacific region have brought about an increase in conditions such as high blood pressure, diabetes, heart disease and drug and alcohol abuse. As a result of lack of access to basic, simple and affordable health services, there is now an increase of infectious diseases such as diarrhoea, dengue, malaria, tuberculosis and pneumonia, and this is compounded by unsafe water supplies and non-existent waste-disposal. Good progress has been made in education, health, social services, literacy, and life expectancy, but there is certainly a need for improvement, particularly in Melanesian countries such as Papua New Guinea and Solomon Islands. Easy and fast access to up-to-date information and data is therefore crucial to governments, planners and educators, among others.

Agriculture and fishing, whether commercial or subsistence, are the main activities for most of the region's population, and the only source of exports for some. Limited markets and the overall decline of commodity prices have affected the traditional production and export of copra and other coconut products. Countries and territories with successful agricultural and mineral exports include: Fiji (sugar and gold), Nauru (phosphate), New Caledonia (nickel), Papua New Guinea (coffee, cocoa, palm oil, copper, gold and crude oil) and Tonga (squash). Timber is a major export commodity from the Melanesian sub-region, but most of the profits go to companies based elsewhere. Fish exports, mainly tuna, are of growing importance to many island countries and territories, with the commercial use of living marine resources increasing to rival the combined value of the region's other renewable resources. Any kind of development, including the improvement of information delivery and the development of electronic publishing is contingent on funding and the state of the economy. For many countries, this is not a high priority compared to more urgent basic health and economic needs.

## **THE SECRETARIAT OF THE PACIFIC COMMUNITY AND OTHER PACIFIC ORGANISATIONS**

Established in 1947 to facilitate the social and economic development of the Pacific islands, 4 SPC is the oldest regional organisation in the Pacific. It is bilingual and covers 22 English and French speaking Pacific island countries and territories: American Samoa, Cook Islands, Federated States of Micronesia, Fiji Islands, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Pitcairn Islands, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna. The five remaining founding countries are also members: Australia, France, New Zealand, United Kingdom and United States of America.

SPC is also the largest regional technical agency with 240 staff (as of February 2003) and the broadest mandate covering human resources (community health, population/demography, statistics, women's and youth issues, cultural affairs, community education and media training), marine resources (coastal and oceanic fisheries, maritime legal and training services) and land resources (agriculture, plant protection, forestry and animal health). It is therefore a key player in regional development.

As a regional technical development agency, it works in partnership with its members, other organizations and donors to deliver priority programmes to its Island member countries and territories. "SPC

work programmes aim to deliver the technical, professional, scientific, research, planning and management capability of Pacific Island people and directly provide information and advice, to enable them to make informed decisions about their future development and well-being.”<sup>5</sup> This mission is in line with SPC’s vision of a secure and prosperous Pacific Community, whose people are healthy and manage their resources in an economically, environmentally and totally sustainable way. The fact that SPC is a Pacific Island organization is reflected in the high islander percentage ratio of staff in the professional category (40.74% as of 1 February 2003).

Over the years, a number of other regional organizations have been founded. CROP, the Council of Regional Organisations in the Pacific, is a high-level advisory body established in 1988 as a formal mechanism to improve cooperation and coordination among the various regional intergovernmental organisations in the Pacific.<sup>6</sup> CROP comprises the heads of ten Pacific intergovernmental organisations:

- Fiji School of Medicine (FSM), based in Fiji Islands
- Forum Fisheries Agency (FFA), based in Honiara, Solomon Islands
- Pacific Island Development Program (PIDP), based in Honolulu, Hawaii
- Pacific Islands Forum Secretariat (PIFS), based in Suva, Fiji Islands
- South Pacific Board for Educational Assessment (SPBEA)
- South Pacific Geoscience Commission (SOPAC), based in Suva, Fiji Islands
- Secretariat of the Pacific Community (SPC), based in Noumea, New Caledonia
- South Pacific Regional Environment Programme (SPREP), based in Apia, Samoa
- South Pacific Tourism Organisation (SPTO), based in Suva, Fiji Islands
- University of the South Pacific (USP), based in Suva, Fiji Islands

A number of CROP Working Groups have been established, in areas such as land resources, marine resources, health and population, information technology and energy. These groups work to develop a regional strategy for each sector. They aim to harmonise the specific roles of each organization, coordinate joint projects, and improve collaboration in order to achieve better outcomes. The ICT CROP Working Group, of which SPC is a member through its IT Section, has the intergovernmental mandate to coordinate ICT planning among regional organisations and has been focusing on a regional approach to ICT development issues that have the largest impact on the state of electronic publishing in the Pacific.

## **ICT DEVELOPMENT CHALLENGES IN THE PACIFIC**

A recent report<sup>7</sup> by SPC IT Manager Sam Taufao on “SPC Support to National and Regional ICT Initiatives in PICTs through active involvement and participation in the WSIS and associated PREPCOM processes” addresses ICT issues in the Pacific. Based on SPC’s experience on how to improve the delivery of SPC activities to member countries, the report highlights three main challenges facing the Pacific’s small and isolated island countries.

The first one is that more than 85% of Pacific Islanders live in rural areas but the infrastructure is very poor or non-existent. “While telephone and Internet connectivity may not be the highest priority in many rural communities, with regards to the new economy and the information society, approximately 85% of Pacific Islanders, in theory, cannot take part with access.”

The report also highlights that Pacific Island Countries and Territories (PICTs) “all face varying degrees of challenges due to the lack of trained and experienced people in the technical, management, policy areas of ICT development as well as being proficient users of ICT solutions. That makes capacity building and training very high priorities and that applies to all Pacific Island communities in both rural and urban areas.”

Another issue is that many PICTs still do not make adequate use of available information in decision making “either because the information is not available, is not in a useable form or cannot be trusted as accurate and timely. That makes data management a third priority.” Finally, the report also emphasizes that it is also an issue of perception, as some policy makers in the Pacific still wonder “Is data management really that critical given that many independent Forum countries have managed without it since independence?”

These challenges all affect the development of electronic publishing in the region.

## **ELECTRONIC DOCUMENTS AT SPC**

Regional organisations such as SPC have been instrumental in the production and development of electronic documents in the Pacific. In addition to its printed publications (newsletters, handbooks, posters, etc.) SPC produces the following electronic documents:

- documents in Adobe PDF format downloadable on its Website (<http://www.spc.int>);
- documents in html and MS Word available on the website;
- some of these documents are also available on CD-ROM;
- documents with wider appeal will soon be available for sale on a commercial secure website;
- several electronic-only newsletters are produced for specific target groups (e.g. “News@SPC” for SPC official contact points; “E-update” for women’s groups);

- the website also hosts several automated general and special interest mailing lists for both internal and external use (such as PacNet, a public health surveillance network);
- CD-ROMs are also produced for documents and publications.

**TABLE 1 – INTERNAL AND EXTERNAL MAILING LISTS HOSTED BY SPC AS OF MAY 2003<sup>8</sup>**

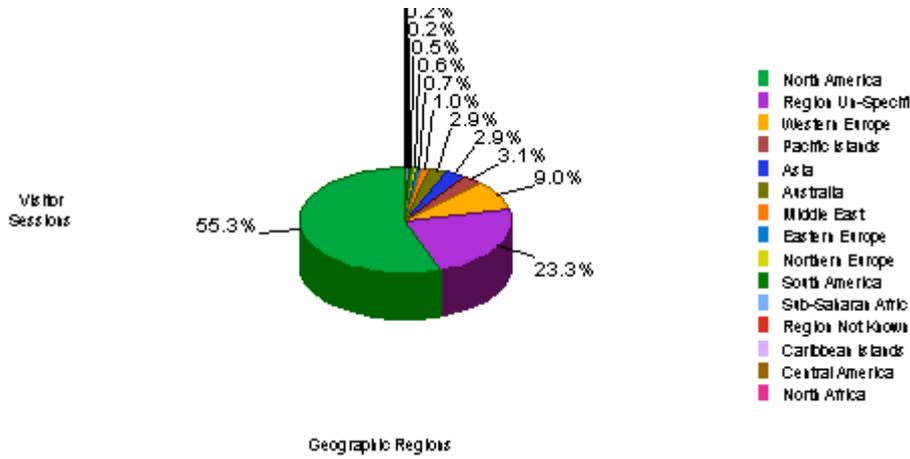
<b>List name</b>	<b>Description</b>	<b># List</b>	<b>Topic</b>
aidscore	Aids	22	Health
aidspharm	Aids	32	Health
annonce-de-reunion	CPS Annonce de Reunion	16	Announcements
aquaculture	SPC Aquaculture Mailing List	37	Fisheries
avis-de-recrutement	CPS - Avis de Recrutement	526	Announcements
bulletin-de-la-pina	Bulletin-de-la-PINA	3	Library
ccvonet	Commonwealth Chief Veterinary Officers List	22	Animal Health
circulaires	CPS - Circulaires	11	Announcements
communiqués-de-presse	CPS - Communiqués de presse	44	Announcements
copranet	Copra Oil for Power as a Renewable Alternative NETWORK	17	Energy
devnet	DevNet	15	Library
economist-business	Economist – Business (SPC readers of Economist)	6	Library
economist-politics	Economist – Politics (SPC readers of Economist)	7	Library
epinet	EpiNet National Teams	111	Health
ex-staff	Ex SPC Staff List	83	General Lists
feer	FEER (internal SPC staff)	5	Library
flash-oceania	Oceania Flash (internal SPC staff)	4	Announcements with Attachments
flynet	Flynet	33	Agriculture
hr-and-democracy	HR and Democracy (internal SPC staff incl 3 ex-staff)	6	Library
id21news	ID21News	9	Library
information-circulars	Information Circulars	73	Announcements
internet-users	SPC Internet Users Group	37	Information Technology
irian	Irian (only members are Admin and Librarian)	2	Library
islands-business	Islands Business Contents	17	Library
journal-pacifique	Journal Pacifique (only member is Librarian)	1	Library
la-toiles-d-elles	La toiles d'elles	4	Library
live-reef-fish	Live Reef Fish List	219	Fisheries
meeting-announcements	SPC Meeting Announcements	79	Announcements
micronesia-center-news	Micronesia Center News	3	Library
mma-licence	MMA Licence List	9	Fisheries
monitoring-pacific-news	Monitoring Pacific News	5	Announcements
nature	Nature	5	Library
netmaster	IT Netmaster List - Private	2	Private Lists
new-scientist	New Scientist	8	Library
nouvelles-publications	Nouvelles Publications Peche	79	Fisheries
oceanie-flash	Oceania Flash	4	Announcements with Attachments
pacbees	PacBees	33	Animal Health
pacdeh	PACNET Distance Education in Health	29	Health
pacdent	Pacific Oral Health Professionals Network	25	Health
pacedit	Pacific Editors	12	Publications
pacelf	Elimination of Lymphatic Filariasis List	2	Health
pacific-islands-monthly	Pacific Islands Monthly Contents	43	Library
pacific-news-bulletin	Pacific News Bulletin Contents	21	Library
pacific-news-bulletin-french	Pacific News Bulletin Contents	10	Library
pacific-publishers	Pacific Publishers List	36	Library
pacific-report	Pacific Report Contents	21	Library
pacific-translators	Pacific Translators List	2	Library
pacific-writers	Pacific Writers List	2	Library
packava	Pacific Kava Discussion List	10	Agriculture
paclib web portal	Pacific Library Web Portal	5	Library
pacnet	Pacific Public Health Surveillance Network	575	Health

pacnet-assoc	Pacific Health Professional Association Network	10	Health
pacnet-clim	PACNET Climate Mailing List	28	Health
pacnet-lab	Pacific Laboratory Network	51	Health
pacnet-restricted	Pacific Public Health Surveillance Network Restricted	74	Health
pacnet-web	PPHSN Web site development list	14	Health
pacnuts	Pacific Nutrition Network	103	Health
pacprism	Pacific Region Info Base	72	Statistics
pacstats	Pacific Statistics Forum	152	Statistics
pacvet	Pacific Veterinary List	102	Animal Health
pacwin	Pacific Womens' Information Network	255	Gender
paravet	Paravet	18	Animal Health
piala	Pacific Islands Association of Libraries and Archives	136	Library
pignet	Pacific Internet Users Group Mailing List	168	Information Technology
pina-nius-online	PINA Nius Online	7	Library
plug	Pacific Linux Users Group	29	Information Technology
prefacenet	Photovoltaic in the Pacific	121	Rural
press-releases	SPC - Press Releases	138	Announcements
publications-update	SPC Fisheries Publications Update	469	Fisheries
pwrb-e-news	PWRB e-newsletter	174	Gender
pycexec	Pacific Youth Council Executives	10	Youth
q-net	Pacific Quarantine Issues List	17	Animal Health
recruitment-notice	SPC Recruitment Notices	1,477	Announcements
santeduc	Santeduc Province Nord	12	Health
science	Science (only member is Librarian)	1	Library
sctb	Standing Committee on Tuna and Billfish List	178	Fisheries
south-sea-digest	South Sea Digest Contents	9	Library
spc-contact-points	Official Contact Points English	50	Private Lists
spc-contact-points-french	Official Contact Points French	13	Private Lists
tok-blong-pasifik	Tok Blong Pasifik	2	Library
toknet	TOKNET Mailing List	19	Information Technology
Tuna-org	TUNA-ORG (only members Tony Lewis & Tim Adams)	2	Fisheries
wastenet	Pig Waste List	6	Animal Health
wiminet	SPC Women's Focal Points	43	Gender

## ELECTRONIC DOCUMENTS ACCESS IN THE PACIFIC

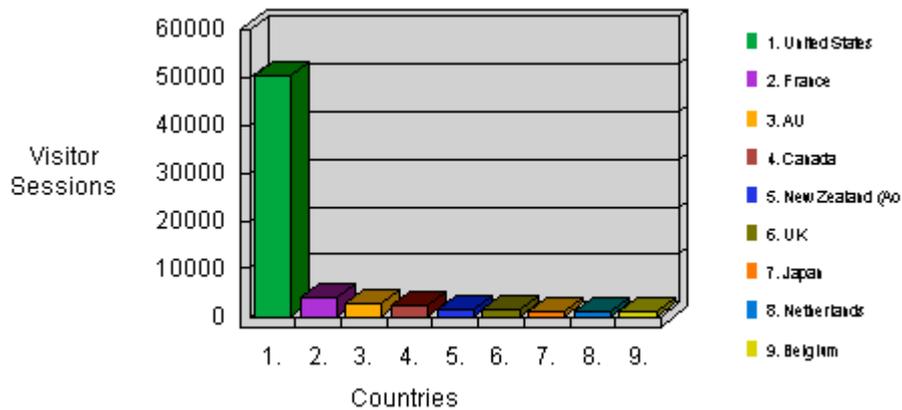
With an average of 20,000 hits per day on the home site on weekdays, and approximately 35,000 pages, who accesses documents available on line at SPC? Target groups are first and foremost the 22 Pacific Island countries and territories served by SPC. Yet, website access statistics<sup>9</sup> (determined by suffix of domain name) and experience show that most users come from outside these target groups, from developed countries in North America and Europe, Australia and New Zealand.

**TABLE 2 – TOP GEOGRAPHIC REGIONS OF VISITORS TO SPC WEBSITE (Report Range: 04/12/2003 00:00:00 - 05/11/2003 23:59:59 Generated On Sunday May 11, 2003 - 17:40:56)**



Geographic Regions	Visitor Sessions
North America	52,991
Region Un-Specified	22,360
Western Europe	8,621
Pacific Islands	3,006
Asia	2,800
Australia	2,754
Middle East	934
Eastern Europe	698
Northern Europe	610
South America	519
Sub-Saharan Africa	234
Region Not Known	173
Caribbean Islands	68
Central America	44
North Africa	35
<b>Total</b>	<b>95,847</b>

**TABLE 3 – MOST ACTIVE COUNTRIES - VISITORS TO SPC WEBSITE (Report Range: 04/12/2003 00:00:00 - 05/11/2003 23:59:59 Generated On Sunday May 11, 2003 - 17:40:56)**



The major reason for this difference between target groups and actual users is the unique constraints affecting delivery of electronic information in developing countries and territories of the Pacific, particularly:

- low computer ownership,
- widespread lack of access to internet connection in rural areas,
- low speed available and
- high connection costs.

The Pacific was one of the last regions to adopt the Internet and develop ICT strategies. Internet was first used in Fiji in 1995. The first ISP started business in Samoa in 1997. SPC's website has been online since October 1997. Pacific islanders have access to ICTs, primarily through their workplaces, a few secondary and tertiary educational institutions, and a few public centres and Internet cafes, with numbers concentrated in urban areas. Only three Pacific countries have more than one Internet Service Provider. Pacific island countries and territories first gathered in August 2001 at the Ministerial level to discuss the impact of ICT to these small island states and to develop a regional ICT vision and strategies promoting the need for national ICT policies. These issues cannot be separated from the development and use of electronic publishing in the Pacific region.

Even access to CD-ROM documents depends heavily on computer access and literacy. Statistics on computer ownership in the islands are not readily available. Those that are available vary from 5.5 per 100 in Fiji to 0.6 per 100 in Samoa.

So, is electronic publishing useless in the region? The answer varies and depends on the target groups themselves. Documents targeting government contacts and the scientific community are well received, mostly because these target groups are computer literate and have computer and Internet connections through their workplace. But electronic documents targeting local NGOs and grassroots communities who lack this advantage usually fail to reach their targets. A recent example is the "E-update" sent by the SPC Pacific Women's Bureau to women's groups, which will now be complemented by a printed version for these very reasons.

## **IMPROVING ACCESS TO ELECTRONIC INFORMATION**

It has become evident that there is no single solution. In order to address this critical issue, SPC has come up with creative initiatives such as ComEt and PRISM.

### **COMET**

One difficulty SPC faced in improving the access to the electronic information it produces was that it had two sites, the headquarters in Noumea (New Caledonia) and a regional office in Suva (Fiji Islands); connections between them were not particularly high. A mirror site in the US solved part of the difficulty but did not address communication between the two SPC sites in the most cost effective and efficient way, nor their connection speed to and from the Internet. The ComET (Communication Enhancement through telecommunications) project was initiated in 1999 with funding provided by France and Australia. Two earth stations were installed, one in Suva and one in Noumea. A dedicated 64Kb link over PANAMSAT 2 was established in April 2000 and upgraded to 128Kb in late 2002. The result is that the two SPC networks (with 300 computers at the two sites) are joined together as one; email and electronic document transfer are fast and efficient with generally lower costs and ongoing costs are fixed. Approximately 2 million email messages were exchanged in 2002<sup>10</sup> (excluding mailing lists). Internet Access costs are shared on a "user pays" basis within the organisation. Although the advantages are mostly to the SPC intranet and are by no means typical of the rest of the Pacific, this technology can easily be made available by SPC to Pacific countries.

In addition, faster access to and from the Internet has facilitated the transfer of electronic documents through the development of electronic newsletters, automated mailing lists and downloadable documents and publications.

### **THE PRISM PROJECT**

Access to up-to-date, comparable key regional socio-economic indicators is a necessity for government planners, policy makers and statisticians in the Pacific Island region. Following attempts to regularly disseminate and share key national data through regular printed publications and a regional database, a broad range of statistical indicators, including those for the Millennium Development Goals, will soon be available in a regional internet-based information system that National Statistical Offices (NSOs) of the Pacific region will be able to update and consult themselves. This Pacific-wide internet-based system will provide cheaper, wider and easier dissemination of essential regional data. The Pacific Regional Information System (PRISM), is already under development by SPC in cooperation with other regional organisations, with the financial support of the United Kingdom's Department for International Development (DFID), and the database component is expected to go online in May 2003. PRISM will give NSOs the tools and the skills to develop, publish and maintain their own Internet websites, with the PRISM website acting as a portal to the national statistical websites, which will be developed and maintained by the NSOs in cooperation with SPC. Where countries do not have the capacity to host their own websites locally, they will be hosted at SPC. For those countries that have difficulty accessing the data, PRISM will be provided regularly to them on CD-ROM.

## **A REGIONAL APPROACH TO IMPROVING ACCESS TO ELECTRONIC INFORMATION AND COMMUNICATION**

In spite of the real advantages of these initiatives, it has become obvious that a regional approach to ICT is necessary. Over the past five years, Pacific island countries have attempted to thoroughly consider the role of information and communication technologies (ICT) in their social and economic development. The regional vision that has emerged has been endorsed at ministerial level with the adoption by Pacific Island Ministers of the Pacific Islands ICT Policy and Strategic Plan as: “*ICTs for Every Pacific Islander*”. Much of this work has been carried out through the ICT Working Group of the Council of Regional Organisations of the Pacific (CROP).

As to the question “Why regional cooperation?”, the ICT CROP Working Group identified the following advantages:

- National development plans require rational and integrated development of ICT;
- Countries want improved efficiency, enhanced business environment & support for development;
- Regional facilitation, combined with national guidelines, will increase efficiency and impact;
- Member countries & regional organisations working together can leverage resources.

ICT regional priorities specified by Forum island countries during a joint APT/CROP ICT Working Group meeting<sup>11</sup> on 17 April 2002 focus on the following areas:

- National ICT policies and strategic planning;
- Tele-health;
- Capacity building and training;
- Tele-centres and community access.

According to the ICT CROP Working Group, the Pacific response so far has been as follows:

- Liberalisation cautiously on the agenda;
- Cooperation between governments & private sector;
- Support for good governance, information sharing & public awareness;
- Increased participation in global ICT dialogue;
- Infrastructure development and support;
- Prioritised capacity building and training.

## **SPC’S CONTRIBUTION TO THE REGIONAL APPROACH**

SPC’s IT Section’s Strategic Plan for 2003-2005<sup>12</sup> focuses on improved information and communication capacity, with an internal and an external focus. The external objective is: “Enhanced information and communication services in PICTs”. This objective takes about 20% of resources and its expected outputs are:

- Strengthened national capacity in network systems administration and management;
- National ICT policies and strategic plans formulated and/or adopted;
- Improved ICT skills and access to information for PICT communities.

According to the SPC’s IT Section’s Plan and discussions at the CROP ICT Working Group, potential results for the Pacific are that SPC efforts in cooperation with development partners under the guidance of member countries are expected to help PICTs:

- afford IT & telecommunication costs;
- enable & sustain new forms of economic and social development;
- interconnect, inform and bring together Pacific communities.

Achievements in 2002 on enhancing the ICT Support Network in PICTs (both human resource and infrastructure) are as follows (as reported on<sup>13</sup> to the SPC Committee of Representatives of Governments and Administrations, in November 2002):

- NZAID funded PINA project (technical & practical support to PICT Network Managers/Administrators)
- Technical advice and support to PICTs
- Project review & support (ICT issues)
- 55 electronic mail lists for SPC programme delivery
- Technical advice & support to SPC Programmes e.g. PRISM & CETC regional activities
- Cooperation with CROP & other agencies

## **WHAT THE FUTURE HOLDS FOR THE PACIFIC**

A recent paper on the Caribbean and the Pacific Small Island States submitted to the World Summit on the Information Society - PrepCOM II (2003), concludes that “while ICT development in the Pacific... is still at a very early stage in terms of numbers of connections and overall use, the promise it offers for increased productivity and enhanced social and economic growth in the future is likely to be significant. However, the challenge is to increase the awareness of decision makers and get their buy-in and understanding the societal impact of ICTs.” The future growth of electronic publishing is intimately linked to these developments.

The cost of ICT development remains an issue of concern to all countries. Even in advanced PICTS, infrastructure is still inadequate at present and is expensive to bring to an acceptable level. For example, to run

submarine fibre optic cable to meet their identified bandwidth most countries would need subsidies to make it viable; it is known that at least one PICT is currently exploring this possibility. This bodes well for the future of electronic communication and publishing.<sup>14</sup>

Yet, despite these constraints, the most interesting fact about the Pacific islands is not so much how far they still have to go in terms of electronic publishing, but how far they have come in just a few years, even more rapidly than the other regions. Through the efforts of information professionals, electronic publishing continues to increase rapidly in the Pacific, particularly in government circles, libraries, educational institutions, national and regional organisations, mostly because these are the people that are computer literate and have computer and Internet connections though their workplace. For instance, other regional organisations such as SPREP now also produce electronic newsletters. For the moment however, and until the support and infrastructure is readily available throughout the whole region, and at a small cost, most Islanders and particularly those from rural and isolated island communities continue to rely mostly on printed materials and radio for their information needs.

## ACKNOWLEDGEMENTS

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