

People First Network and the potential of ICT in rural development

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Background of People First Network

People First Network (PFnet) is an initiative that was established in association with the Solomon Islands Ministry of Provincial Government and Rural Development (as it was then known) under the United Nations Development Program's (UNDP) Solomon Islands Development Administration and Participatory Planning Program (SIDAPP) in 2001.

Institutionally, PFnet is a flagship activity or project of the Rural Development Volunteers Association (RDVA), which was incorporated in August 2001. The RDVA has a memorandum of understanding with the Solomon Islands government. In 2008, the linkage with the government was moved to the new Ministry of Rural Development and a new memorandum of understanding was signed.

PFnet is a rural community communication network designed to provide a sustainable service for the 80 per cent of the Solomon Islands population with no access to national and global information and communications services. Applications of information sharing and knowledge building in furtherance of national social development goals can be run over the network.

PFnet comprises 1) a network of approximately 30 rural email stations using high-frequency, solar-powered radios with modems, managed by village committees and connecting through the internet gateway at PFnet headquarters in the capital, Honiara 2) an internet café in Honiara; and 3) a web site with news, forums, peace and development information and a hosting reseller service with advertising to raise revenue. Through implementation of the Distance Learning Centres Project (DLCP), PFnet has acquired substantial capacity in many networking technologies, including VSAT and Wi-Fi. PFnet is likely to manage the technical administration of the DLCP VSAT network and rural wireless networks after the DLCP ends in 2009.

PFnet is a 'first-mile' information and communications technology (ICT) service provider. Turning around the term 'last mile' as used by commercial telecommunications providers, the term 'first mile' helps us think instead of rural communities from the user perspective—that is, the first mile, not the last—and expresses a more equitable and far less top-down approach to the challenge of providing universal connectivity, regardless of location and income. The term first mile was coined in South Africa in 1997.

Focus

PFnet's start-up and expansion phase in 2001–04 was funded by the UNDP, Japan's Grassroots Program, NZAid, the British High Commission and the embassy of Taiwan, with additional funding directed at specific communities via AusAID's Community Peace and Restoration Fund (CRPF) and the European Union's Micro-Project Program.

PFnet's current operations rely on revenue generated by its internet café and web site services (about 60 per cent) and project implementation (40 per cent). PFnet is implementing the European Union's DLCF project and through that receives significant direct support from the European Union; however, this is tied to the delivery of project management services.

PFnet (via the RDVA) is a member of the Global Knowledge Partnership (GKP; www.globalknowledge.org). It was named as a finalist of the InfoDev ICT Stories Competition 2002, the Stockholm Challenge

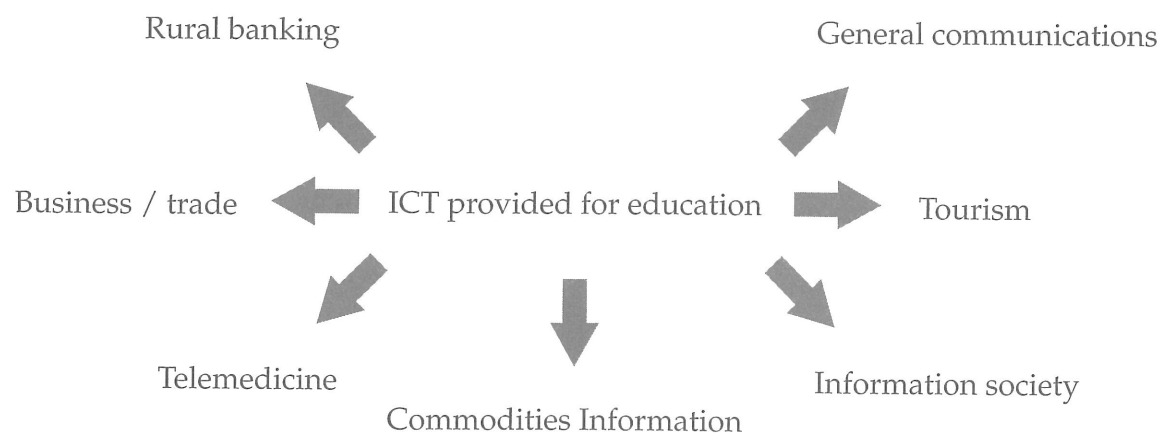
2002 and 2004 and the UNESCO Rural Communications Prize in 2004. It has been cited as best practice in many reports and publications, including by the UNDP and for AusAID's Virtual Colombo Plan.

Sustainability of PFnet

The future sustainability of networking organisations such as PFnet depends on a number of critical factors, in addition to the careful selection of appropriate technology

- local ownership, ensuring accessibility for everyone and responsiveness to local demand
- linkage to human networks such as women's, church and youth groups, to ensure relevance to real needs
- mainstreaming government and donor service delivery and development programs through the network, driven by official policies and service agreements

Figure 1 Sustainability of rural community ICT through maximum usefulness, sector and programming linkages



Focus

- linkage to sector-based applications
- building partnerships for development to reduce costs and improve outcomes for all partners.

Sustainability also depends on minimising costs and maximising revenue generation through service provision. Since 2004, PFnet has demonstrated its ability to stand on its own feet with no direct core funding; however, high overheads mean that it still depends on continuing support through project implementation.

Figure 1 illustrates the PFnet model, built on by the DLCP, whereby rural ICT is made as useful as possible to maximise uptake by rural people and therefore improve sustainability.

Institutional structure of PFnet

Figure 2 provides an organisational chart of PFnet. Note that the email stations operate

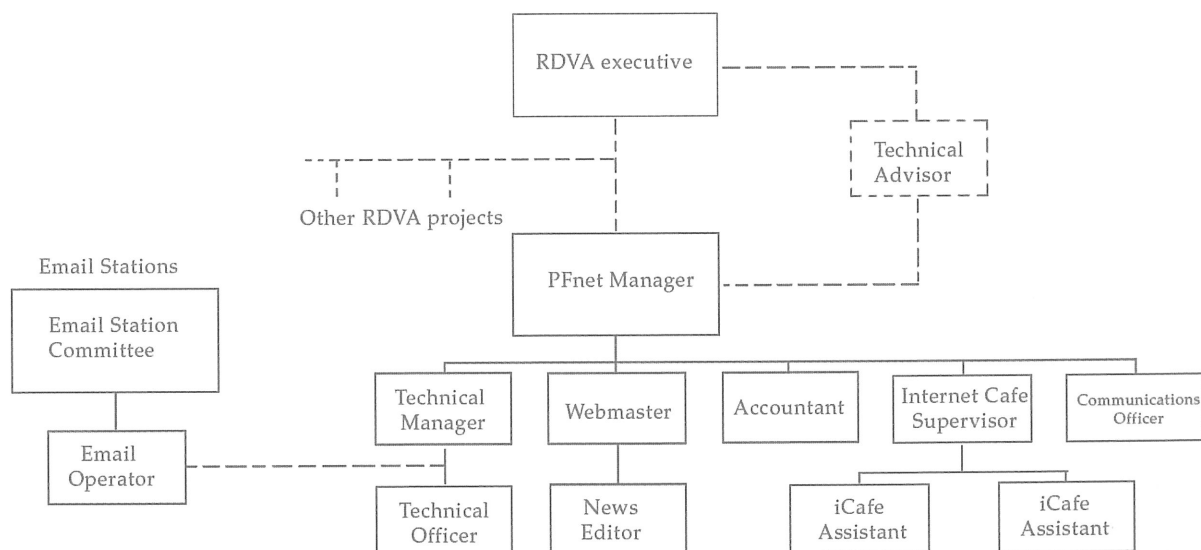
autonomously, under the supervision of a local management committee with representation from all groups in the community. Email operators send monthly reports to PFnet. Email operators are funded from their own revenue.

PFnet's web services

PFnet runs a popular web site that is one of the most visited of Solomon Islands' ('dot-sb') domain. The web site functions in the following modes

- as an archive of development-related data, including SIDAP provincial and constituency development profiles
- as a provider of national and rural news. Grassroots news stories are collected by rural email stations and published on the web site. This helps provide a voice for rural people. News reports are emailed to rural email stations where they can be

Figure 2 PFnet's organisational structure



printed or, if an FM broadcasting facility exists, broadcast in local languages.

- As a forum platform: a popular open forum gives Solomon Islanders the rare opportunity for free and open, uncensored debate (within legal limitations). There is scope for systematic development of this function tied to matters of national interest.
- Hosting reseller services with advertising—mostly for companies, organisations and private businesses operating in the country, although outside organisations wanting to do business in the Solomon Islands are not excluded.

Rural PFnet networks

The following types of rural ICT networking are available. This section provides definitions of the technical capabilities and modes of the various ICT networks and how they might be interconnected/integrated.

HF radios

- can send voice calls within a limited provincial and national range
- provide only limited privacy/confidentiality
- cannot be used for email or to access the internet, and function in real time only
- are not efficient in frequency/bandwidth use, with many radios competing for time (this is assisted through the provision of schedules, but this requires coordination)
- cell-call function offers increased efficiency, makes point-to-point calls easier and provides an alert that someone has called
- almost every village has one, either in a clinic, church or school

- provides community and network-related (health, church, and so on) voice messages, person-to-person and one-to-many, but in real time only
- can connect to the PSTN telephone network.

PFnet email stations

- can send emails and text but cannot send multimedia or allow browsing of the internet; can also make and receive HF voice calls if configured with the frequencies needed
 - provide the full power of email and can forward messages to many recipients world-wide
 - can send documents (text only) and highly compressed non-text files at a rate of about 1 minute per kilobyte (KB), in practice
 - operator can assist people to send messages, even if they have no computer skills, and even in local languages
 - messages can be sent to other email stations, the PFnet Internet Centre in Honiara and the distance learning centres, where they can be printed out and delivered or collected. It is therefore possible for people with no ICT skills to use the facility
 - provide community and private messages, one-to-one or one-to-many, over the global email network
 - could act as hubs for HF radio networks.
- #### Distance learning centres
- provide full broadband internet
 - online conferencing is possible
 - can send and receive large documents, including video, audio and multimedia documents
 - distance learning is linked to technical, vocational, tertiary, academic and continuing education
 - offer enrolment and study via the

University of the South Pacific, the University of Papua New Guinea's Open College or other distance-education providers

- provide workshop facilities with full audiovisual equipment
- a trained supervisor (full-time manager) acts as technical trainer and facilitator for distance learning
- the supervisor can play an active role in building capacity within different community groups to use the networks
- the centre can act as an information hub, with the supervisor and assistants providing information services
- could act as a multimedia and training hub for the whole province.

Community radio

- broadcasts audio information to reach a large audience
- users do not need ICT skills
- very user-friendly for local languages
- content can be live or recorded in various formats, including on cassette tape or CDs as MP3 files
- printed information can be read out over the radio
- mass-media service to share information of interest to the whole community
- can be used to inform and to solicit feedback, and for people to create their own content
- could be a powerful tool for promoting good, transparent and accountable governance
- possibly the most powerful way to include rural people on a large scale due to its local ownership
- marries very well with PFnet email stations, as demonstrated in Isabel via the UNDP-IPDP¹ (Isabel Province

Development Program. Text can be emailed to the station and then translated into local languages and broadcast.

One laptop per child

The 'one laptop per child' program (OLPC) provides a mechanism for early education linked to social development. For more information on OLPC activities in Solomon Islands, see the web site (http://wiki.laptop.org/go/OLPC_Solomon_Islands).

Wireless networking pilot in Marovo Lagoon

Internet access via VSAT in rural areas can easily be extended to surrounding sites using low-cost terrestrial wireless solutions, as shown in Figure 3.

The technology required to set up wireless links of up to 50km is cheap and uses low levels of power, and PFnet has demonstrated the capacity to establish this via a pilot project in Marovo Lagoon.² This comprises

- a solar-powered access point on Mt Mariu, Gatokae, connecting to the VSAT at Bekabeka Distance Learning Centre via a 6km wireless bridge. Any school or community within the blue area marked on the map (Figure 4) can connect to the access point, which has been operating since January 2008
- a 30km link to Batuna Vocational School, via the Mariu access point. A small computer/learning centre has operated at Batuna since February 2008.

Location of networks

In summary, the following networks exist in Solomon Islands:

- PFnet has 30 email stations spread across eight provinces (Central/Russell Islands currently have none)

- the DLCP has nine distance learning centres (the ninth, in Choiseul, was not yet operational in March 2008). PFnet is managing the MEHRD-EU DLCP³ project and will continue to provide technical administration
- the UNDP IPDP-established community FM radio stations attached to PFnet email stations in Isabel Province; this model can be replicated
- under the wireless networking project in Marovo, it is likely that up to 15 schools could be connected in central Marovo, connecting to Patukae School, which has a VSAT under the Secretariat of the Pacific Community's Rural Internet Connectivity System (RICS) pilot program
- the Secretariat of the Pacific Community's RICS project will provide additional VSAT connectivity in rural areas
- Telekom operates in all provincial capitals and some larger towns; however, only a few of these sites offer mobile and internet access.

The outlook for increased penetration of commercial services in rural areas is uncertain. Telekom is extending its mobile coverage gradually and one might expect this to continue, spreading out from provincial towns. The introduction of competition—in particular, with the possibility of Digicel replicating its rapid progress in Papua New Guinea's rural areas—could offer new telephone access in rural areas in years to come. For the next three to five years at least, however, it is highly likely that the majority of rural people will remain without access to global communications unless there is intervention by donor-supported, shared community access projects such as the PFnet and the distance learning centre networks.

Cost is also an issue. Even with the kind of improved mobile coverage provided

by the Digicel experience in Papua New Guinea, mobile calls remain too expensive for rural people to rely on. For instance, with current call charges of S\$4.40 per minute, 10 minutes' of calls a day would generate a monthly bill equal to more than half a rural teacher's salary.

Increased mobile coverage will, however, be highly significant in terms of stimulating rural business growth and service delivery. In Papua New Guinea, an increase in GDP of 0.7 per cent in only a single year was officially attributed to the introduction of Digicel's services. When making rural communications strategies, it will be important to consider where mobile coverage is most and least likely in the medium to long term.

Interconnection of networks

If properly coordinated, the different modes above could work together to improve the utility of the integrated communications system as a whole. This interconnection needs to take into account the limitations of each mode and then distribute added value using the well-known system of creating central hubs, where the access or capacity is strongest. It is important to note that this 'hybridised' system will work only with human facilitation and with mechanisms built in to sustain the services provided in this way.

PFnet email stations and a distance learning centre

It is not possible to browse the internet at email stations; however, arrangements can be made for them to refer information requests to a distance learning centre, where there is a broadband connection and a highly trained full-time manager to facilitate the request. This system was likely modelled on the Online Business Information Service (OBIS) of the Ministry

of Commerce, through which requests for business information were referred to a central hub (the Ministry of Commerce) for research and results were returned (by fax only, in those days). The service requires the involvement of the PFnet operator, who can interpret the customer's needs and collect a small fee, and the distance learning centre supervisor or delegated assistant, who can research the information. This would be a good opportunity to involve young people at the learning centre, who would make very good information volunteers.

Potential of PFnet in rural development

PFnet has enormous potential if it is mainstreamed into the Solomon Islands government's and donor partners' development programs, particularly in the areas of rural development and civic education.

Once the rural network is in place, it can be used for information-sharing applications. The applications for PFnet, arranged in association with partner organisations, include:

- distance learning (University of the South Pacific trials, leading to the European Union-funded DLCP project)
- dissemination of government information bulletins
- rural consultations for constitutional reform
- rural consultations and feedback on the peace process, linked to the Solomon Islands Broadcasting Corporation's (SIBC) *Talkback* program and UNDP's 'PEACEPAC' program
- communications for sustainable livelihood projects and small enterprises including the European

Union-established seaweed farming, and companies selling tropical fish and crayfish

- marketing information provided by the Commodities Export Marketing Authority (CEMA)
- disaster communications and management—Simbo email station sent the first report of the 2007 tsunami to PFnet headquarters, where it was passed to the Pacific Tsunami Warning Centre in Hawai'i within 30 minutes of the earthquake. Some stations sent information on their immediate needs, while others confirmed no damage or injuries at their locations
- email legal advice inquiry service linked to the Public Solicitor's office.

The potential of PFnet in rural development and electronic governance has not been fully realised yet. Some possibilities that have been identified by the sector are listed below.

Education

PFnet has been linked to education delivery through the European Union/NZAid sector-wide education program. For instance, the European Union has capitalised on the lessons learned from distance-learning trials in 2002, in which 20 University of the South Pacific students studied from a remote village, supported by the university using the email system. This has resulted in the establishment of nine dedicated distance learning centres equipped with VSAT broadband under the DLCP project.

In brief, existing and potential linkages to education delivery include:

- University of the South Pacific and University of Papua New Guinea Open College distance-education programs
- supporting rural teacher trainees and 'in-school' teacher professional development

Focus

- other Distance Flexible Learning (DFL) study in demand, such as from the Pacific Theological College
- literacy training—supporting literacy trainers and the training of trainers
- technical training—supporting rural trainees via email
- when linked to a community FM radio broadcasting facility (see details below), there is considerable potential for sending awareness information—such as about life skills, elections, civic education and civil and human rights—via email, which can then be translated into local languages and broadcast.

Health

The Ministry of Health is well placed to make use of the rural networks to benefit its programs (contact Dr Divi Ogaoga: dogoaga@mof.gov.sb). Chief health/nursing officers in several provinces have demonstrated awareness of this potential and would be able to drive the utilisation forward using a local perspective.

The areas in which linkages to health will have the best effect are

- health promotion—especially when linked to FM radio broadcasting
- clinic data—emailing health reports using standard templates
- telemedicine—remote referral of cases
- emergency health communications
- distance learning—print materials sent by email with email tutoring and support for learners
- open learning (by linking to the Pacific Open Health Learning Network).

Agriculture

There is a great deal of linkage that can be made in this sector. There is sufficient awareness and capacity at the Ministry

of Agriculture and Livestock (contact Alfred Maesulia: maesulia@yahoo.com) and CEMA (contact Moses Pelomo: cema@solomon.com.sb) to make effective use of the networks, working with the chief agriculture officers in the provincial headquarters and their agriculture offices in the villages hosting the rural access stations. Recent consultations with Ministry of Agriculture and Livestock and CEMA, together with lessons from CEMA's previous trials with PFnet, have resulted in agreement on a blueprint for ICT support to the rural agriculture sector.

The main opportunities include:

- provision of technical assistance and training via distance mode, linking technical expertise services (for instance, Ministry of Agriculture and Livestock, Kastom Gaden Association, Taiwan Technical Mission, PestNet) to farmers via the email network
- access to the inquiry services of the Agriculture Information and Marketing Information units and digital libraries operated by the Ministry of Agriculture and Livestock and CEMA
- agriculture-related broadcasts in locations where there is FM broadcasting
- government agriculture bulletins and newsletters printed for public message boards
- access to studies for agricultural qualifications via distance mode.

Disaster preparedness and response. PFnet has given this topic some thought because of the nine years of experience of the late PFnet manager, Randall Biliki, previously director of the National Disaster Management Office (NDMO). The NDMO's role is coordination, disaster preparedness and response. Linking PFnet and NDMO had been intended for a long time; discussions were continuing when Biliki died in July 2007. PFnet has always been seen as a natural partner for

NDMO (contact Lotty Yates, Director: managerndc@solomon.com.sb; Julian Maka, Programs Officer: programsndc@solomon.com.sb).

Consultations have been made with the NDMO and the areas in which opportunities exist are

- coordination of provincial NDMO officers and ICT support for their rural training programs
- rebroadcasting of NDMO radio bulletins where FM broadcasting is available
- feedback from communities on any impending risks in their communities
- emergency response—systematic collection of assessment data and so on.

Civic education. At the time of writing, a Strategic Framework for Engagement in Civic Education in Solomon Islands was being formulated. In consultation with Kaye Bysouth (independent consultant), the potential of the rural networking in civic education has been noted.

A priority is to promote the uptake of emerging (ICT) across the Solomon Islands as a fundamental foundation for community learning. People need more and better information, more and better skills and more organisational linkages and channels for expressing their views and participating in decision-making. To be legitimate and effective, the community learning process should focus only on providing people with accurate information so that they can develop stable decision making and implementation processes which best serve their needs.

If community learning for building a better society is to be effective, it needs to respect the legitimacy of the local organisations that operate at the village, area and provincial levels and to discover and define the specific ways in which these organisations and networks can link with government for the benefit of the people.

Much of the work already being done by non-governmental organisations, churches, the traditional leaders, women's and youth groups and teachers at the local level and through regional and provincial level associations is, in fact, civic education. [We need] to proactively support such local organisations and networks to use communication channels effectively for community learning. As well as improved ICT, support needs to be provided to village level organisations/traditional structures, regional and provincial networks, non-governmental organisations and provincial administrations, to use existing and emerging forms of communication responsibly and effectively. This would involve assisting these groups to

- use communications to reach the maximum number of people in their target group or area
- engage in two-way and group communication with government and non-government agencies in order to improve the capacity of workers, to learn from each other's work, to improve coverage and promote a consistent quality of information dissemination; and thereby
- assist village people to actively participate in the process of nation building.

The PFnet networks can also be utilised in parliamentary strengthening, for instance:

- helping parliamentary committees to communicate with constituencies to be better in touch with public opinion on matters referred to them
- improving members' capacity to engage with constituents
- connecting rural areas to a parliamentary email inquiry service
- awareness activities with rural schools
- extending and managing Youth Parliament activities in rural areas.

Focus

Where FM broadcasting facilities exist audio resources can be rebroadcast on the FM stations, including 15-minute summaries of parliamentary debates, and travelling MPs could be interviewed.

Rural finance

PFnet and the DLCP have been in dialogue with commercial banks regarding extension of their services to rural areas via the email stations and distance learning centres. In particular, ANZ Bank has a rural banking program and has partnered with the UNDP to produce a financial literacy learning module. The outcomes of this include the following.

- ANZ has signed a memorandum of understanding with DLCP/RDVA and the Ministry of Education to deploy a bank agency at the Arnon Atomea Distance Learning Centre in North Malaita. This will benefit from broadband and solar power allowing EFTPOS technology to be used to facilitate full banking services. The distance learning centre will offer complementary financial literacy training and awareness about internet banking; this model relies on a secure system for cash transfer: the bank has a rural banking truck that visits North Malaita, thus making that possible. ANZ will evaluate and expand to other distance learning centres if judged successful, in 2008.
- All the distance learning centres have the UNDP financial literacy module on their computers. This can be emailed easily to each email station and made available to customers there. This service should be incorporated in the training for the PFnet operators.
- ANZ is willing to accommodate email inquiries and other services via the email stations.

- The National Bank of Solomon Islands was also interested; however, discussions were halted when the bank was taken over by the Bank of the South Pacific. Indications were that the dialogue could be restarted after a settling-in period.

Commerce

Potential linkages for rural small and medium enterprises and the Industrial Development Division of the Ministry of Commerce (IDD) officers include:

- the Ministry of Commerce has an information unit, which is linked to trade via the Ministry of Foreign Affairs
- ANZ Development Bank
- the manager of ANZ's rural banking operation, has indicated that he is willing to enter into a dialogue with the commerce officer in Buala to discuss what kinds of services and linkages can be provided via the email stations and FM radio.

Land

Consultations were made with AusAID's Solomon Islands Institutional Strengthening of Lands Administration Program (SIISLAP) in November 2004 (the situation might have advanced). The lands department (as of November 2004) has no online presence; however, SIISLAP has done some thinking on the issue, although it is not one of its priorities. A strategy it could employ would be staged to allow appropriate capacities to be built in synchronisation with the deployment of such services online. These might be

- as internet access improves in rural areas, make available general information such as ministry information, forms and brochures designed to help clients understand the procedures. If these can

be downloaded in rural areas, it would help clients collect the information they need before undertaking expensive journeys to the provincial centres where the lands centres are located. A gradual move towards facilitating email inquiries could also be entertained if the ministry becomes able to maintain such an inquiry service consistently

- the ability to run queries on a lands database might be introduced. This would allow people to identify land boundaries and so on; however, there are legal issues.
- the ability to submit applications online/via email.

Minerals, natural resources and fisheries

Rural officers might be empowered to access technical advice via email with appropriate organisations and explore services they can offer rural communities:

- the Pacific Islands Forum Fisheries Agency
- the Minerals Policy Institute (MPI), an Australian-based non-governmental organisation specialising in advocacy, campaigning and research to prevent environmentally and socially destructive mining, minerals and energy projects in Australia, Asia and the Pacific, (<http://www.mpi.org.au>; contact: mpi@mpi.org.au or projects@mpi.org.au). This organisation can provide advice on environmentally sound and socially beneficial mining operations, and offers an email newsletter with free subscription via the web site
- University of the South Pacific schools and departments related to these sectors.

There are undoubtedly many other organisations, academic institutions and projects that could provide advice, capacity

development/training and collaborative activities.

Churches

The various churches of the Solomon Islands often have awareness programs, make announcements and conduct monitoring. Their communication officers could be trained to use the email network. Priests make natural champions of such communications and can help drive the usage of the PFnet stations. For instance, priests in Isabel are already studying with the Pacific Theological College in Fiji, using PFnet email stations.

Women

The main potential of the network for women's groups such as the Mothers Union is for coordination, distance learning and awareness. For instance, they can consider preparing text-based information to be emailed to email stations for dissemination via FM broadcasts, where available, including in local languages.

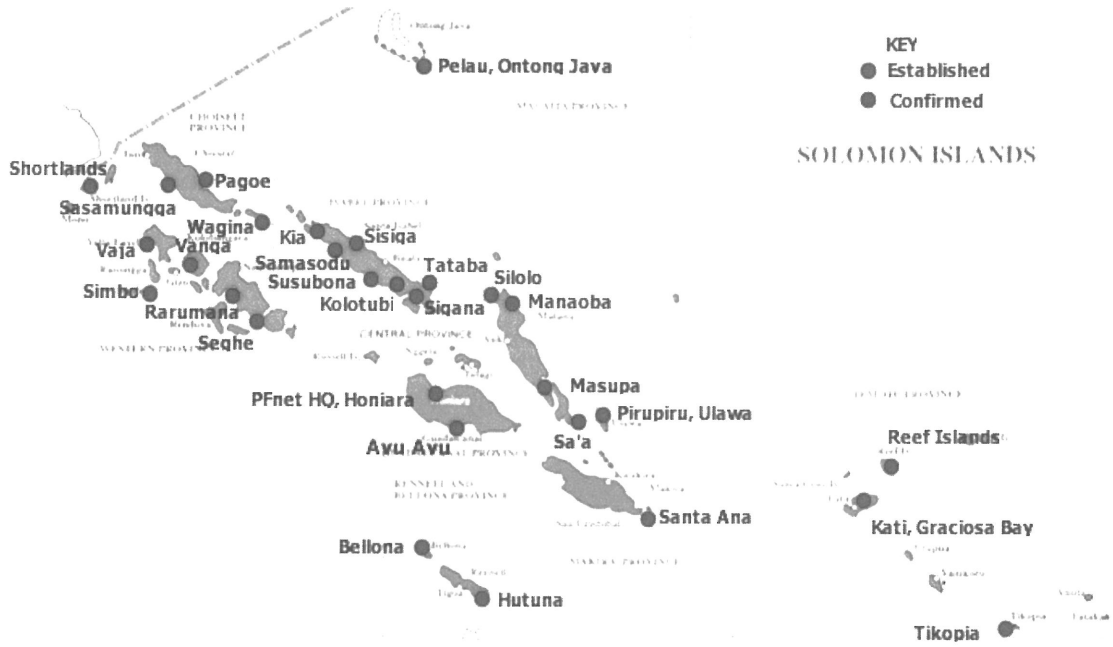
For example, the supervisor of the Guguha Distance Learning Centre, Paul Tauriki, has been working with a group of women, helping them to locate useful information on the internet. For instance, a web site with training in home management and cooking, featuring e-learning video clips, has been identified and has been found to be relevant and useful.

Women make good literacy trainers; it is possible to support this via email stations.

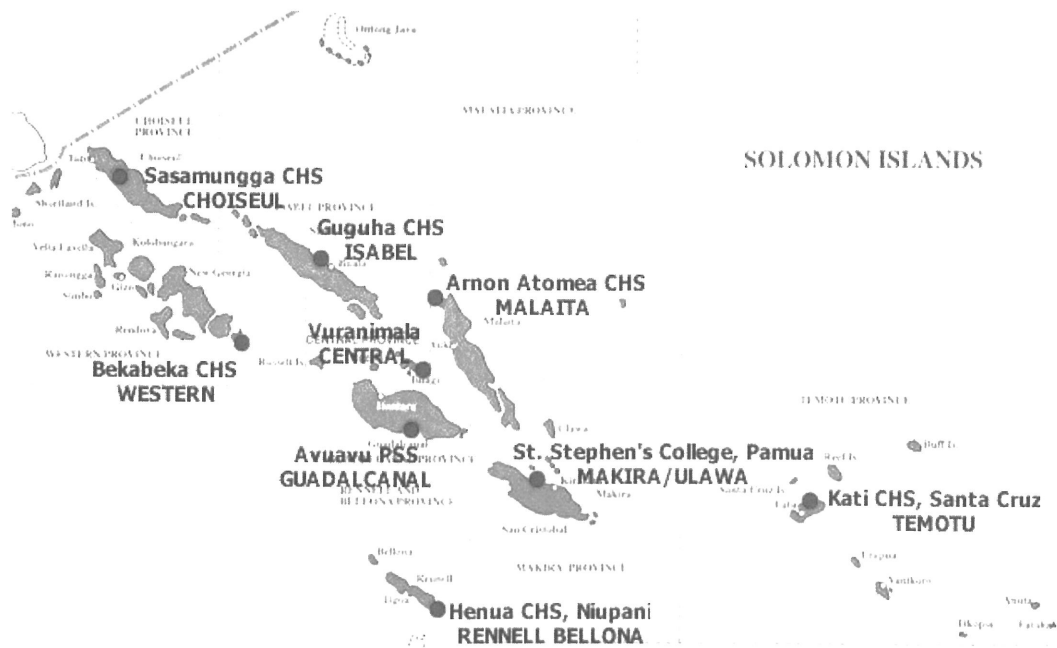
There are also a number of national and international organisations supporting gender issues and women's development. These could integrate the systematic use of the email network to disseminate information and interact with rural women.

Focus

Map 1 Location of PFnet email stations (all but the Reef Islands are now established)



Map 2 Location of distance learning centres with VSAT broadband



Youth

Young people are very effective in the uptake and application of ICT. Save the Children Fund (SCF) has rural youth programs and works to increase youth participation in decision-making. Outreach activities include awareness, for instance, concerning HIV/AIDs and substance abuse—mainly marijuana/*kwaso* use—child abuse and domestic violence. They also have other activities—sport, community work, helping the aged, gardening, fund-raising and so on—and some training, including for small income-generating projects.

SCF is setting up youth committees in villages. Building the capacity of these committees to use ICT will obviously be attractive to young people and will also make them more effective.

Youth volunteers could be trained as information coordinators to assist with email inquiries for information coming from the rural PFnet stations.

The email network could also extend the Youth Parliament's activities to rural communities.

The Commonwealth Youth Program (CYP) is collaborating with SCF to create a Youth Forum in Honiara that will also act as an information centre.

Legal services

PFnet has held trials in which rural people can contact the Public Solicitor's office for advice. The PFnet email stations can also be used more effectively in community policing.

Increasing participation

Perhaps one of the main sources of potential for the email network is in empowering rural people to access information and to make their own voices and opinions heard. PFnet has, for instance, trialled the linkage of rural email stations to the SIBC's *Talkback* program. The email network provides

a means to reach and consult with rural communities on important matters of national interest.

Rural e-governance

There are some potential applications for e-governance in the planning cycle (including monitoring), for improving the transparency of government and improving participation of all communities in these processes. To this, we can add improving efficiency and strengthening the machinery of government, including how local government links to the national government, through

- transparent leadership and administration
- public reporting of income and expenditure
- public reporting of crime and law and order issues
- market prices and shipping information
- electoral information, including profiles of candidates.

Challenges

PFnet has been successful so far in its objective to provide sustainable communication systems for the rural population, though a lot of rural areas are yet to be covered. It must also be commended for the spin-offs from its operations, resulting in projects such as the DLCP and the OLPC. There are, however, pressing issues PFnet will have to consider seriously sooner or later, including how to expand its network to further help the country.

Sustainability

How will PFnet be able to sustain itself in the years to come? Its current monthly revenue

means it would barely reach the break-even point. Today, PFnet enjoys the great support injected by the European Union for the implementation of the DLCP, which will most likely last until the end of 2009.

Due to the increasing number of internet cafés in Honiara and the rising costs for electricity, stationery and so on, PFnet's internet café can no longer be the primary revenue earner. PFnet has to look for other income sources if it is to continue with its activities. Therefore, PFnet will

- expand its awareness programs to include especially those in decision-making in Solomon Islands government ministries, so that its potential in rural development and e-governance can be realised and maximised by the government
- mainstream into the government's and donor partners' rural development programs
- expand its working partnership network
- lead and develop a Free and Open Source Software FOSS team, working in collaboration with overseas partners to develop applications for the HF email stations.

Expanding the communication network

It is very difficult to work in an environment in which services cannot be expanded because of tight communications regulations. For instance, to kickstart the project, the DLCP went through a lengthy process involving decision makers at a very high level—something that would have to be repeated if any changes were needed to the agreement, such as changing the bandwidth allocation. Other real and potential difficulties include:

- the recent Telekom strike affected PFnet's email communication and there was nothing PFnet could do about it
- deployment of the RICS could infringe the monopoly licence
- the government needs to open up the monopoly licence or at least come up with a policy to open certain areas. One approach would be to lift restrictions in remote rural areas while keeping the monopoly in the central areas.

Notes

- ¹ UNDP-IPDP - Isabel Province Development Program. UNDP program for Good Governance in the Solomon Islands, piloted in the Isabel Province
- ² A second access point is planned in central Marovo, linked to the Secretariat of the Pacific Community's pilot VSAT site at Patukae under its AusAID-funded Rural Internet Connectivity System project; see http://wiki.laptop.org/go/OLPC_Solomon_Islands
- ³ MEHRD-EU – Ministry of Education Human Resources Department in partnership with European Union to establish the Distance Learning Center Projected that is currently implemented by PFNet