

# Impact of PFnet Services on Sustainable Rural Development

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## OVERVIEW of PFnet PROJECT

PFnet in the Solomon Islands is the first attempt to introduce rural e-mail stations in remote rural villages in isolated islands. It was established in 2001 under an UNDP-UNOPS project and was initially partly funded by UNDP. Since then the major funding has come from Japan, NZODA, Britain, Republic of China, AusAid and European Union (Leeming, 2003a). It is managed by the Rural Development Volunteer Association (RDVA), a registered NGO. PFnet has an Internet Café (head office) in Honiara, the capital city and operates a network hub with fourteen rural e-mail stations linked by HF (short-wave) radios with e-mails typed in a laptop and powered by solar energy (Stork, Leeming, and Biliki, 2003). PFnet provides for the information and communication needs of the rural people. It is a source of information (e.g., providing news, Internet access), source of communication (sending and receiving e-mails), and provider of typing, secretarial, and printing services. PFnet has been a success story in improving the information and communication needs of the rural people (Leeming, 2003b).

PFnet has three interdependent pillars. One is a public access point in Honiara, the capital city. This Internet Café allows residents to exchange e-mails with stations across the Solomon Islands or the wider Internet. They can also browse the World Wide Web or post their own information to share with others (Stork, 2004a). The Café also serves as a training facility for a number of rural development stakeholders and the broader public. A second pillar of PFnet is a development portal, providing developmental information and facilitating the flow of trusted news between communities (Leeming, 2003c). This has proven to be an important aspect of peace building in a nation torn by ethnic conflict between 2000-2003. The third and, ultimately, the most important component of PFnet is the network of rural e-mail stations located on remote islands across the country. The stations are usually hosted in provincial health clinics, community schools, or other accessible and secure public facilities. E-mail operators help customers send and re-

ceive e-mails and provide other services at a nominal cost (Stork, 2004b).

PFnet is based on the concept of community ownership (grassroot people) at the village level with three partners: PFnet committee chosen from village people, PFnet Operator, and PFnet management based in Honiara. The model of community leadership and operation was formulated and piloted to ensure grassroots ownership, community empowerment, and the security of facilities and equipment. The model was successfully applied to all PFnet rural e-mail stations. The model operates as follows:

- Awareness of an e-mail station project is raised among the community and a village management committee is established in accordance with the cultural context.<sup>2</sup> The committee chooses the location of facilities and station operators and is responsible for the effective operation of PFnet station.
- A three-way agreement is signed between the committee, operators and PFnet, defining the roles of each party (including technical support, maintenance, security, and ownership), as well as the sharing of revenues (with incentives for the operators and committees and the setting up of a maintenance fund).
- Champions and local experts are identified among potential users with e-mail awareness and needs, and are expected to initiate other members of the community to e-mail services, and provide locally available technical backstopping. Their support is usually rewarded with a free e-mail account.

## AIM OF THE RESEARCH

The research was designed with two main aims (with minor aims within each main aim). The first main aim was to find out the extent of access and utilisation of the PFnet services in the Solomon Islands. Within this broad aim the following research questions were examined:

- What are the main issues affecting community uptake and appropriation of services?
- Why only 20-25% of the users of the e-mail stations are women? What are the reasons for this? What are the recommendations to increase women's participation?
- What are the principal factors underlying differences in utilization amongst the e-mail stations?
- What are the information needs of differing groups (women, the elderly, farmers, students, entrepreneurs and business people, etc.) in the e-mail stations?
- Why do certain e-mail stations generate more revenue than others?
- What are the significant descriptors (and primary interactions) of a rural e-mail station and a user community?
- What is the optimum spread of the network and where can additional sites be located to best effect?

The second main aim was to find out the impact of the PFnet services on "sustainable rural development." Within this broad aim the following research questions were examined:

- Has the PFnet project improved the livelihoods of people in PFnet project communities? If so how?
- What groups in these communities have benefited most? Which groups have benefited the least?
- Has the PFnet project in PFnet project communities contributed to:
  - Environmental awareness and sustainable resource management and/or
  - Improved gender equality in PFnet project communities, if so how? And/or
  - Improved well-being (including health and security) for people in PFnet project communities?
  - Peace building and reconciliation?
- In what ways have any improvements to livelihoods, environmental awareness, gender equality and well-being been sustained?
- Has the PFnet project been able to increase awareness of the use of ICT's as an enabler for Development at the policy and decision makers' level in the Solomon Islands? If so how? Has the PFnet project stimulated the activity at the policy level in the Solomon Islands?
- What linkages to other projects (focusing on Japanese funded projects in light of the Japanese funding for PFnet/PFnet replica) and new initiatives can be considered for the future?

## RESEARCH METHODOLOGY

This study was designed as a sociological study of PFnet stations and both quantitative and qualitative research methods were utilised to gather data. Quantitative methods are useful in revealing the extent of differences between groups and can provide a sense of space for qualitative methods. On one hand, the data collected through quantitative methods is often seen as being more authoritative, and therefore more likely to be taken seriously by relevant high-level policy makers (Bryman, 2001). Quantitative methods were useful in revealing the extent of differences between groups and can provide a sense of space for qualitative methods. On the other hand, qualitative research methods have the ability to reveal the complexities of human arrangements. It can be applied in ways that provide the opportunity for deriving a great deal of "rich data," thus revealing a comprehensive understanding of the real issues that are operating in a village or society and in this way, help to place the situation under study in a broader context (Coffey & Atkinson, 1996).

### Quantitative Research Methods

Four quantitative sets of data were collected for the research.

#### Primary Base-Line Survey

First, a primary base-line survey was conducted to collect data from a wide range of respondents in the Solomon Islands.

#### Research Instruments for the Survey

A structured questionnaire was the main research instrument used to conduct the survey. Five different sets of questionnaires were designed and used for the survey. Questionnaire one was used to gather information from people who "use" or "ever-used" PFnet services. A second questionnaire was used to gather information from people who "never-used" PFnet services. Third questionnaire was used to gather information from "operators" at each of the PFnet stations. Fourth questionnaire was used to gather information from "committee members" of at each of the PFnet stations. Finally the fifth questionnaire was used to gather information from "focus group meetings."

#### Pilot Testing of Questionnaire and Training of Research Assistants

The questionnaires were pilot tested by Solomon Island post-graduate students at USP and five researchers assis-

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