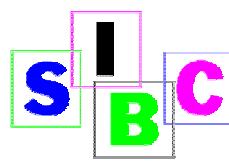




People First Network



*Solomon
Islands
Government*



Solomon Islands ICT Strategy Workshop Report¹ February 10-11 2003

**United Nations Development Programme sub office,
Honiara, Solomon Islands**

Edo Stork,
ICT Thematic Analyst,
UNDP Fiji Multi County Office
edo.stork@undp.org

David Leeming,
Technical Advisor,
People First Network,
leeming@pipolfastae.com

Randall Biliki,
Manager,
People First Network,
pfnet@pipolfastae.com

1. SUMMARY OF WORKSHOP RESULTS

A workshop was held in which stakeholders involved in ICT development in the Solomon Islands participated in identifying, analysing, and prioritising problems on issues related to Information, Communication Technologies (ICT's) for (ICT) development in the Solomon Islands. The workshop, entitled the ICT Strategy Building Workshop, was held from 10th – 11th February and as well as building consensus, was intended as the first step towards the development of a National ICT Strategy for the Solomon Islands. PFnet organised the workshop, which was co-sponsored by Solomon Telekom and Solomon Islands Broadcasting Corporation, as well as the UNDP Sub Office in Honiara, where the workshop was held. Over 25 people attended from the Solomon Islands Government, NGOs, private sector, donor agencies and civil society organisations, including representatives from most of the sectors and organisations with a keen stake in ICT. The meeting was opened by the Minister for National Planning, the Hon. Nolen Leni, with the Permanent Secretary for the Ministry with the Communications portfolio. The Director of the Spectrum Office of the Solomon Islands government also attended. The workshop used a participatory method called Object Oriented Project Planning (OOPP) to firstly identify all the problems associated with the current status of ICT development, which was described in the main problem thus:

Information and Communications Technologies (ICTs) are only used to a limited extent in the development of Solomon

¹ Additional resources may be obtained from <http://www.peoplefirst.net.sb/general/pfnet.htm> and <http://www.undp.org.fj/ICT.htm>

Islands by Government, NGOs, the private sector, communities, civil society and individuals.

The following are the results of the workshop:

- 54 problems identified and agreed by all participants in the workshop on the limited use of ICT's in SOI.
- All problems represented in a problem tree with cause and effects relationships agreed by all participants in the workshop.
- An objective tree was constructed from the problem tree agreed by all workshop participants which can be used immediately to identify the priorities for ICT development, and can be broken into clusters from which the logical frameworks of development programmes can be derived.
- The objective tree was divided into clusters each corresponding to interrelated objectives. Participants divided into groups and analysed each of the main clusters observed in the objectives tree, suggested project ideas and made recommendations.
- At the end of the workshop the Solomon Islands ICT Working Group was formed amongst all participants and it was agreed that the material developed in the workshop would be taken further by the ICT working group.

2. BACKGROUND

The idea of this workshop came about first between talks by Alan Agassi (Chief Rural Development Officer, Rural Development Volunteers Association) and Edo Stork (ICT Thematic Analyst for Development of the UNDP Fiji Multi Country Office) in the ICT workshop organised by the Pacific Islands Telecommunication Association (PITA) and the Asia Pacific Telecommunity (APT) from 11-13 November 2002 in Nadi, Fiji.

In this workshop, Stork (2002) presented a paper on "Enhancing People's participation in the Pacific through the usage of ICT's". In his presentation, a problem tree relating ICT problems in the Pacific was shown. The problem tree tried to conceptualize the different problems that exist within the Pacific which hamper ICT development. This particular problem tree was the inspiration for Alan to organise a workshop in the Solomon Islands in cooperation with PFnet and the Rural Development Volunteers Association (RDVA) to produce a similar problem tree identifying the reasons for limited ICT use in the Solomon Islands.

During this time David Leeming, Technical Advisor of PFnet, and Randall Billiki, PFnet manager, were drafting a PFnet strategy document to document where PFnet could make strategic interventions for ICT development in the future. For this document some analysis of the current ICT situation in the Solomon Islands was needed and a Solomon Islands ICT strategy workshop would provide the right input for this document.

From the perspective of the Solomon Islands Government, the country has not yet developed a National ICT Strategy, although the Solomon Islands Government participated in a regional initiative through the Council of Regional Organisations of the Pacific (CROP) and the Pacific Islands Forum Secretariat to draft a regional ICT Strategy and Policy Plan (SOPAC & SPC, 2001). The proposed workshop, in identifying and prioritising objectives, might be used as a first step towards developing a National ICT Strategy.

3 NEEDS

For this particular workshop two needs were identified to be addressed:

1. The Solomon Islands does not have a national ICT strategy and there are no regular meetings of stakeholders. This workshop was intended for the stakeholders to come

together and make a first step into the direction of a national ICT strategy for the Solomon Islands.

2. The PFnet project wanted to have a clear indication of the specific needs and problems in ICT's for the development of the Solomon Islands in order to find new strategic areas of intervention. The results of this workshop would highlight the particular problems and needs to be overcome that could be addressed by a particular new intervention of the PFnet project.

4. METHODOLOGY

The workshop used a participatory method called Object Oriented Project Planning (OOPP) (ILO, 2002). OOPP brings together representatives of all parties. By discussing the problems and possible solutions, the participants can come to a mutual understanding of each other's points of view. Once some form of consensus is reached, these problems are organised into a logical sequence into a problem tree. Cause-effect relationships between the problems are established giving an overall picture of the situation. Subsequently in the next step of converting the problem tree into an objective tree, the problems are reformulated into objectives to be attained.

Step 1: Problems collection

In an OOPP workshop, the participants anonymously write their problems on cards, which are then displayed on a wall. This way, difficulties some people feel in expressing problems in front of others with conflicting interests can be overcome. Subsequently, the session moderator leads a group discussion to clarify the issues. Sometimes, problems mentioned need to be further specified in order to uncover more underlying difficulties. The moderator avoids linking what is written on the cards with either the originator or the source of the problems.

All participants identify problems as they perceive them in relation to a clearly described entity (in this case, this was: problems related to: "Information and Communications Technologies (ICT's) are only used to a limited extent in the development of Solomon Islands by Government, NGOs, the private sector, communities, civil society and individuals"). Usually it is not possible to represent all parties in the workshop. Problems of unrepresented parties, however, have to be considered and discussed as well, possibly at a later stage

Step 2: Build the problem tree

The next step is to select out of the collected problems a starter problem, for which both causes and effects can be identified. The causes are identified from the cards displayed on the wall, and placed in a cause-effect relationship underneath the starter problem. Problems identified as an effect are placed above the problem causing it. A problem tree will gradually emerge as each problem is related to other problems. The logic is rechecked later. Lines are drawn to show the relationship between problems, and arrows mark the direction of effects.

Step 3: Reformulate problem tree into objective tree

Participants are then assisted to reformulate the problems into realistic objectives. These objectives are displayed on another sheet. The sequence is checked, and some reorganisation may be needed. Once the sequence is acceptable to all participants, lines are drawn to visualise the means-end relationships. Groups of related objectives with a similar topic are clustered and labelled.

Step 4: Identify clusters of the objective tree and make recommendations

The last step of this particular workshop was to break into groups and have the groups make recommendations for achieving the objectives represented in the different clusters.

(The next steps to be taken in the OOPP methodology would involve making a selection of clusters to be included into possible projects. A Project Purpose and Overall Objective(s) can then be selected or formulated. From this data it is fairly straightforward to create a Logical Framework for the new projects. The workshop did not intend to move to this stage but it is possible to do this at a later date).

5. INTENDED OUTCOMES

1. List problems identified by workshop participants in relation to main problem identity. Consensus reached on all the listed problems.
2. Problem tree developed from problems listed by all participants. Full consensus reached on all cause effect relationships in the problem tree.
3. Objectives tree derived from the problem tree with full consensus by all participants.
4. Recommendations for the future collected from participants on clusters of the objective tree.

6. WORKSHOP OPENING

The Workshop was opened by the UNDP Sub Office Coordinator, Richard Ponzio, who outlined UNDP's continuing interest in ICTs for development. The keynote speech was then delivered by Hon. Nolen Leni, Minister for Planning, who explained that he supported ICT development as a key component of country development. He said that his ministry was responsible for developing the country development plans, which includes ICT. The Minister reinforced this statement by adding that the meeting was a planning workshop and highlighted the importance of an interactive consensus building process. Sam Maezama, Permanent Secretary for Infrastructure Development spoke next. [Sam used to be PS for Communications before the Ministry split into the two parts Infrastructure Development, and Communications]. He explained that reform of the ICT sector is a priority for the government. Key sectors of reform included increased competition; strengthening regulatory capacity by separating policy and regulatory and operations; expanding rural access; and formulating an ICT training programme. Sam said that the Ministry of Communications intends to establish a regulatory body for universal access; interconnection; frequency management; licensing of ICT products and services; strengthen the competitiveness of the ICT sector and encourage foreign investment in ICT.

7. RESULTS

First an explanation was given on what Information Communication Technologies (ICT's) stand for:

Old ICTs	New ICTs
<ul style="list-style-type: none">• Radio• TV• Telephone• Fax	<ul style="list-style-type: none">• Computers• Email• Internet

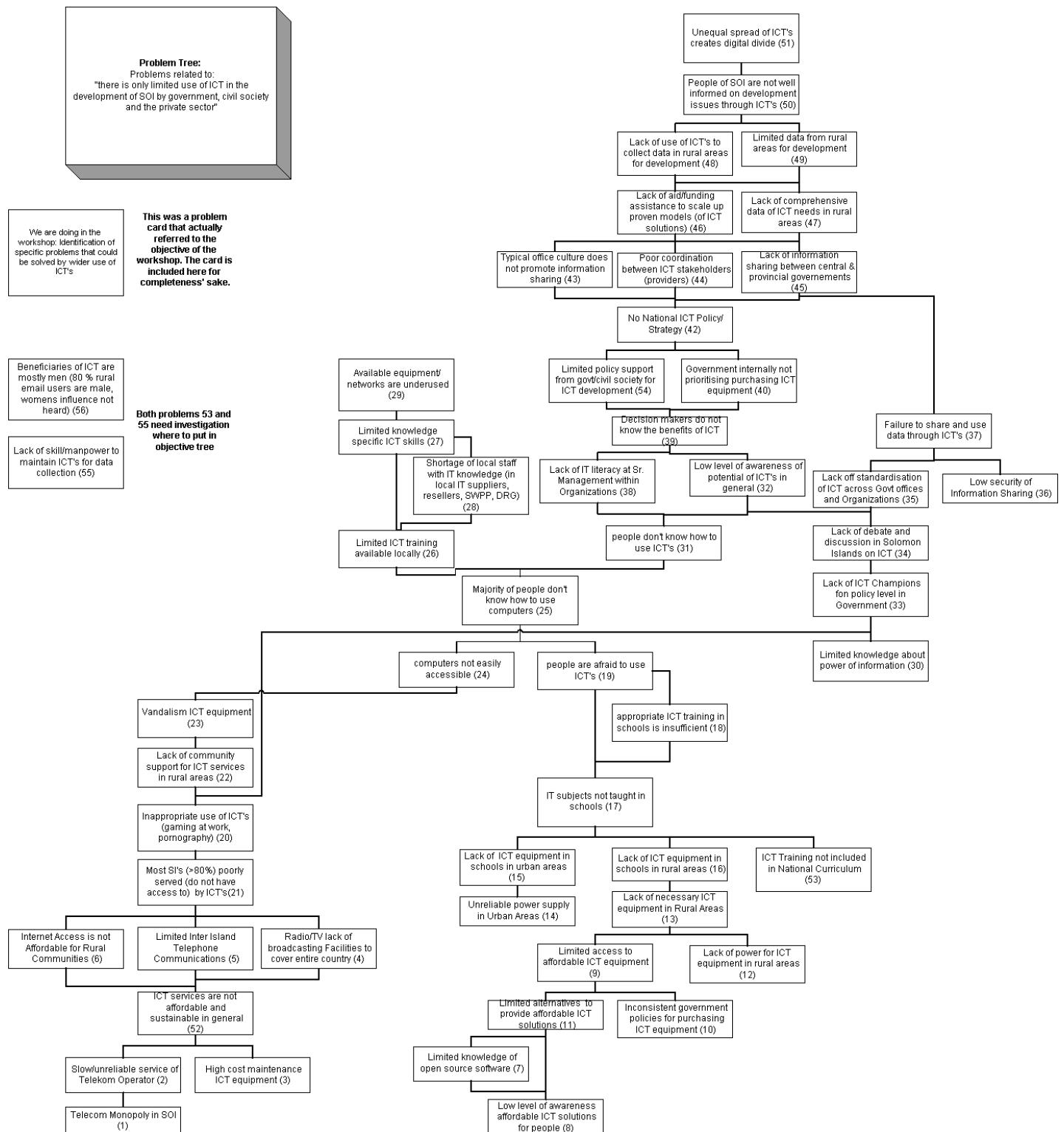
Step1: Problems identified by participants of the SOI ICT Strategy Workshop:

1. Telecom Monopoly in SOI.
 2. Slow/unreliable service of Telecom Operator.
 3. High cost maintenance ICT equipment.
 4. Radio/TV lack of broadcasting Facilities to cover entire country.
 5. Limited Inter Island Telephone Communications.
 6. Internet Access is not Affordable for Rural Communities.
 7. Limited knowledge of open source software.
 8. Low level of awareness affordable ICT solutions for people.
 9. Limited access to affordable ICT equipment.
 10. Inconsistent government policies for purchasing ICT equipment.
 11. Limited alternatives to provide affordable ICT solutions.
 12. Lack of power for ICT equipment in rural areas.
 13. Lack of necessary ICT equipment in Rural Areas.
 14. Unreliable power supply in Urban Areas.
 15. Lack of ICT equipment in schools in urban areas.
 16. Lack of ICT equipment in schools in rural areas.
 17. IT subjects not taught in schools.
 18. Appropriate ICT training in schools is insufficient.
 19. People are afraid to use ICT's.
 20. Inappropriate use of ICT's (gaming at work, pornography).
 21. Most SI's (>80%) poorly served (do not have access to) by ICT's.
 22. Lack of community support for ICT services in rural areas.
 23. Vandalism of ICT equipment.
 24. Computers not easily accessible.
 25. Majority of people don't know how to use computers.
 26. Limited ICT training available locally.
 27. Limited knowledge specific ICT skills.
 28. Shortage of local staff with IT knowledge (in local IT suppliers, resellers, SWPP, DRG).
 29. Available equipment/networks are underused.
 30. Limited knowledge about power of information.
 31. People don't know how to use ICT's.
 32. Low level of awareness of potential of ICT's in general.

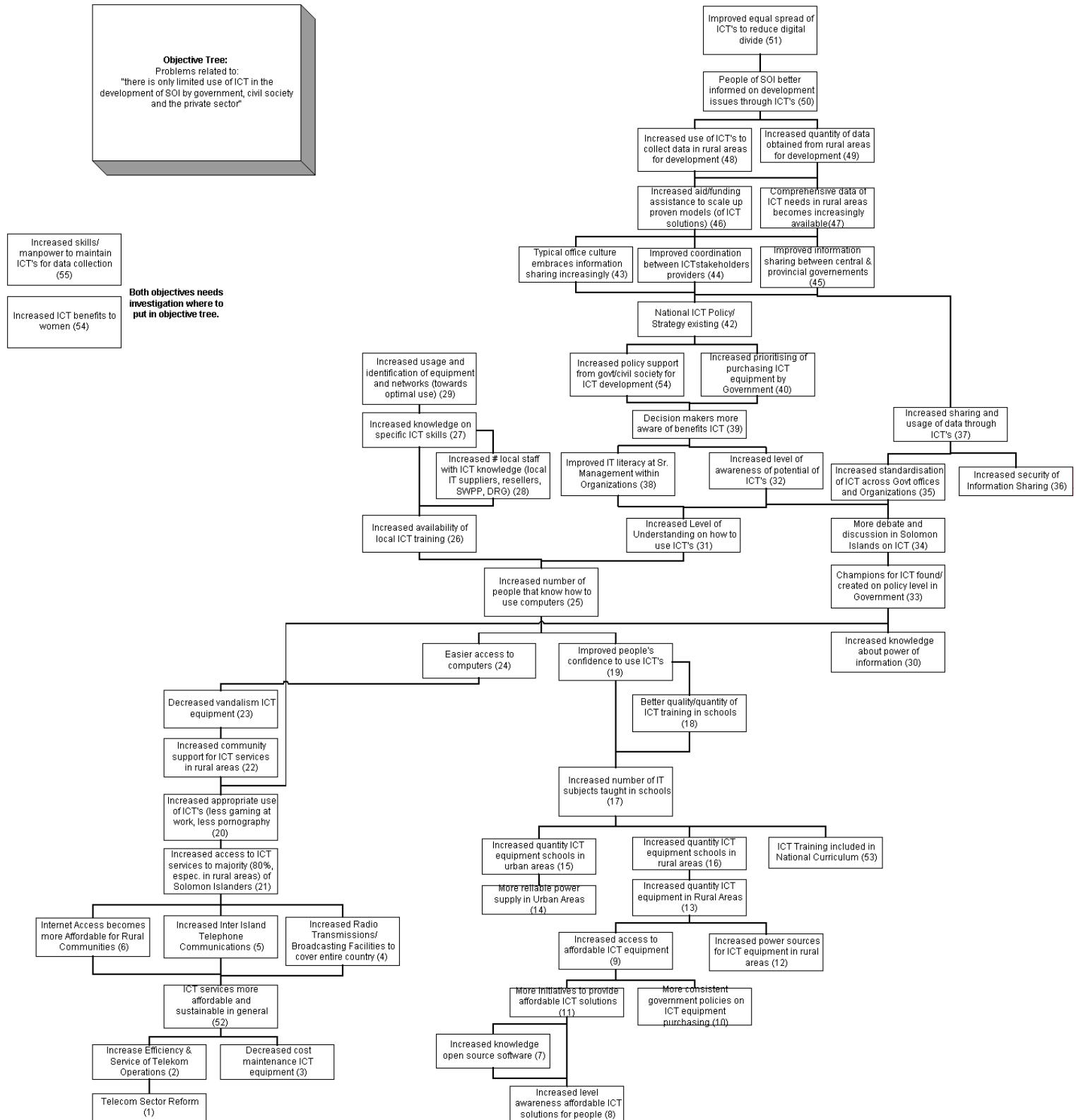
33. Lack of ICT Champions on policy level in Government.
34. Lack of debate and discussion in Solomon Islands on ICT.
35. Lack off standardisation of ICT across Govt offices and Organizations.
36. Low security of Information Sharing.
37. Failure to share and use data through ICT's.
38. Lack of IT literacy at Sr. Management within Organizations.
39. Decision makers do not know the benefits of ICT.
40. Government internally not prioritising purchasing ICT equipment.
41. *This number was accidentally skipped².*
42. No National ICT Policy/Strategy.
43. Typical office culture does not promote information sharing.
44. Poor coordination between ICT stakeholders (providers).
45. Lack of information sharing between central & provincial governments.
46. Lack of aid/funding assistance to scale up proven models (of ICT solutions).
47. Lack of comprehensive data of ICT needs in rural areas.
48. Lack of use of ICT's to collect data in rural areas for development.
49. Limited data from rural areas for development.
50. People of SOI are not well informed on development issues through ICT's.
51. Unequal spread of ICT's creates digital divide.
52. ICT services are not affordable and sustainable in general.
53. ICT Training not included in National Curriculum.
54. Limited policy support from govt/civil society for ICT development.
55. Lack of skill/manpower to maintain ICT's for data collection.
56. Beneficiaries of ICT are mostly men (80% of rural email users are male, women's influence not heard).

² This number is not present in the problem tree/objective tree.

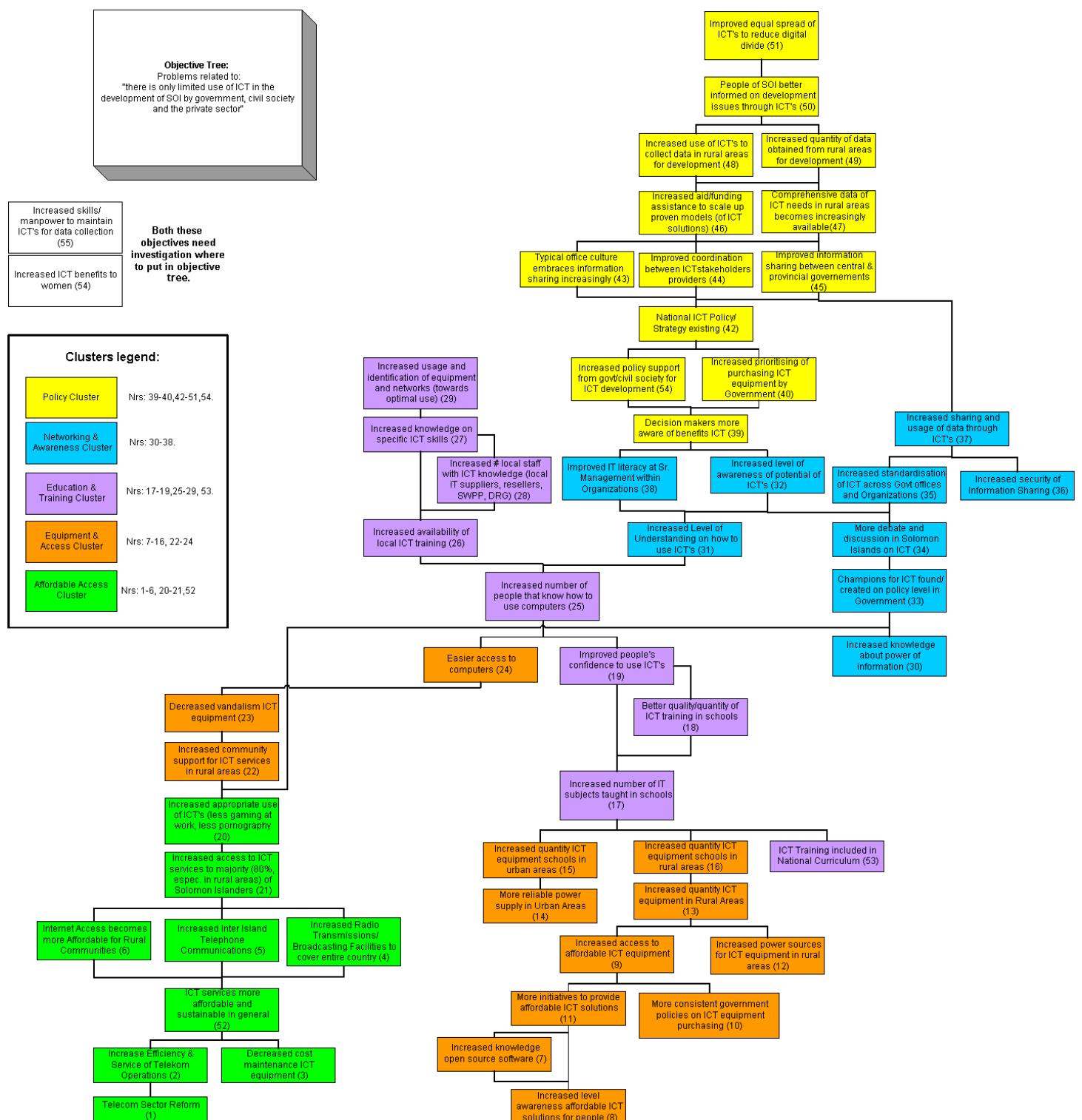
Step 2: Problem Tree constructed from problems of step 1.



Step 3: Objective Tree constructed from problem tree of step 2.



Step 4: Identify clusters in objective tree, recommendations workshop participants.



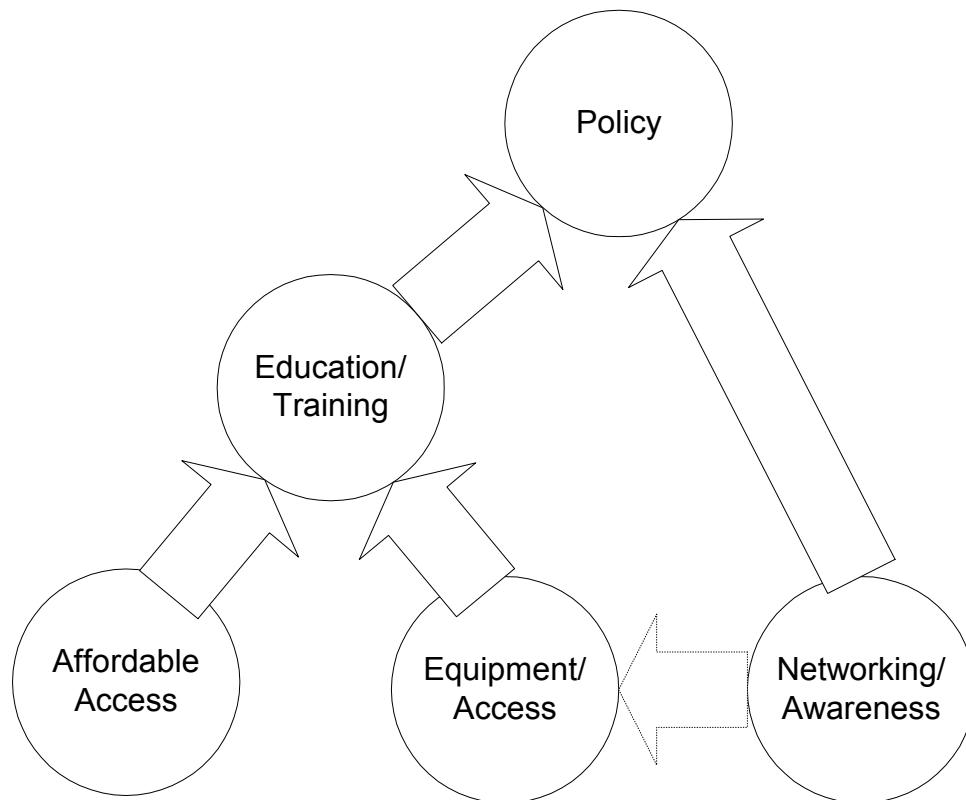
The following clusters were identified in the workshop (see the above graphic)³:

- Policy
- Affordable Access
- Networking/Awareness
- Equipment/Access
- Education and Training

From the problem cluster tree below we can basically see that the three most basic problem clusters are Affordable Access, Networking/Awareness, and Equipment/Access. There is also a link from Networking/Awareness to somewhere in the middle of the Equipment Access cluster indicated with a dotted arrow.

Basically this graph tells us that it would be most effective to first dedicate the highest intensity of work in the Solomon Islands on the problems related to Affordable Access, Equipment Access and Networking/Awareness. After this has been concluded work can be done effectively in Education/Training and after this the problems relating to the Policy cluster can be overcome most effectively.

This does not mean to say that no work can be done in the Policy area. The graphic merely recommends indirectly that policy work on affordable access, equipment and awareness will have the highest impact.



³ See Annex 2 for a description of which problems related to which cluster.

Recommendations and remarks workshop participants by each of the clusters:

Policy Cluster:

- There are many things to be done in the policy cluster,
- Investigate more fully the stakeholders: Who will be interested in the policy work? Who should be interested in the policy work?
- Inform after identification of stakeholders the decision makers about policies. Inform about them about the benefits of ICT's. How can these benefits be translated in things that they can see and experience? Give examples of ICT projects to decision makers.
- How to inform the decision makers: establish national council for ICT. Develop informal presentations to give information. Norman from FFA has information on technical issues. Norman could do a presentation on this in the council. Council can then give these presentations in papers to cabinet as a cabinet paper.
- E-Pacifika could assist in preparing for these above presentations.
- Solomon Islands to participate in the E-Pacifika project.
- Main target for this cluster: increase awareness of decision makers.

Affordable Access:

- Nothing seems to be missing in the objective tree.
- A strong pro-active dialogue between government (regulator) and telecom on issues to reduce rates is needed,
- There is a need to talk about affordable access to rural communities.
- National broadcaster has practical problems in cutting down costs and expanding its services to the whole country,
- Investigate putting a duty exemption on equipment.
- Future projects: address legislative reform. Make sure there is a guaranteed support for funding of projects and guarantee a commitment to National Broadcaster. Investigate other reforms that will cut costs. SNBC wants to get guaranteed funding coming from the legislation to allow for proper corporate planning. (For example: certain % of broadcast fees could go to SNBC. This will make planning easier. Helps national broadcaster buy more equipment and further broadcast area).
- Comment on legislative reform: have a broad consultation with stakeholders.
- Recommendation: formation of a consumer lobby group. Help to raise awareness on the high costs of rates in place. This group could then act as a watchdog.

Networking/Awareness:

- Could not find anything that is missing in the trees.
- One part of this cluster seems to be about e-services and the other part about networks.
- Increased knowledge about power of information. To get people on your side you need standardization. Basically this is about getting people on your side.
- E-Citizen initiative idea that was presented earlier by PFnet: using the PFnet web site in cooperation with media, CSO and government a grand debate about issues in web sites is needed.
- Logic of the tree is useful to look at the intervention logic.

- It could be possible to have a page in the newspaper for the national debate, consultations in rural areas can be done through PFnet.
- Increased awareness of ICT's could also be a start, may be a short cut.
- Subscribe to the idea of forming a council and inviting e-Pacifika to take the council forward.
- After the workshop report is drafted this group can sit down and see what can be done. The council needs to take this process forward.
- Would like to get the opinions of a wider review of the document.
- After the final draft is publicised of the workshop report group could meet once in two months and can have regular presentations.
- Start a council from here and have an Ad Hoc council and see which other people might be interested in joining.
- Also form an interim group: IT advocacy group. Maybe an ICT Task Force or working group can be formed. This needs the advocacy of the media and money for funding.

Equipment/Access group:

- Recommendation: this group will be producing a paper and thoughts on this cluster. This paper then would then be submitted to the Solomon Islands task force.
- Did not think there was anything missing in the problem/objective trees.
- This group felt it had not many facts available to talk about access. There is a need for more objective facts/statistics. First try to get more information on access (possible sources Telekom, Satellite providers, PFnet) and find out more.
- Get a list of comparative cost internationally and use as a maximum benchmark for obtaining affordable equipment.
- Look into locally assembled computers in the Solomon Islands. Investigate whether it would be possible to create more basic and cheaper computers for the Solomon Islands. (Some of the more powerful features of computers are not used anyway in the Solomon Islands in many cases). Many modern machines have facilities that are not necessary for the internet.
- Duty exemptions for locally manufactured machines can be investigated.
- Investigate increased development of local power sources and training. Scope for alternative power sources. Coconut oil for running small generators for example.
- Government should assign a department/ministry with overall responsibility. Now the ministries are split. One ministry should drive ICT and identify a champion.
- Team should be put together recommendations that have been raised to a council/champion to get the ball running.
- Ministry of education seems to have a big role. Their policy should try to address the objectives found in this workshop. For example introduce PFnet email stations in all secondary schools. This would be much more attractive for the donors to finance.
- Task group could investigate what other best practices are being applied in other parts of the world and report to the task group.
- Best practices could be identified through DFID and UNDP networks and feedback provided to the rest of the group.

Education and Training:

- There are immediate things this group can do: decision making bodies are a bottle neck, they seem to be hesitant to make decisions. Could target this group to have them make decisions.
- Target those who need computer training (for example decision makers).
- Through identifying this group this could get the ball running.
- The need to include ICT in the subject in the school curriculum. This will need donor input. In the near future ICT should be included in the school curriculum. This will make sure that ICT's will penetrate rural areas in the future.
- PFnet could develop rural ICT training centres: this would generate awareness in the rural areas.
- Does not know who should write this particular project above.

Other General Comments of note:

- The point was strongly made that 85% of people in the Solomon Islands live in rural villages and that there was a danger of this analysis and the subsequent activities being relevant to urban interests only. The workshop agreed that, ideally, representation from rural areas should have been invited. PFnet commented that it would circulate workshop outputs to its rural sites and facilitate consultations with the rural communities; this would provide at least a sample of rural views.

Overall decision and result:

- Solomon Islands ICT Working Group is formed, first coordinated by PFnet. All people present in the workshop will be part of the SI Working Group. Have to investigate who was not present in the working group. Will set up a mailing list.
- Shall draft media release for the workshop.
- Solomon Islands Telekom is very happy to have had this workshop. This was an opportunity to get people together and not work alone on the matters.

Consequently, an ICT Working Group has been formed to take the findings of the workshop forward and to champion ICTs for development. The first meeting, held in March 2003, will agree the following:

- This report
- Roles and responsibilities, and how they can be circulated amongst members
- How to ensure full representation, all sectors and not just narrow Honiara interests
- A briefing for the Ministers of Communications and Planning
- The mandate or TOR of the working group
- Official endorsement by S.I.G.
- AOB

Acknowledgements

The workshop participants would like to acknowledge and thank the following, in particular:

- Hon. Nolen Leni, Minister for Planning, for his keynote speech,

- Sam Maezama, Permanent Secretary, Ministry of Infrastructure, for briefing the workshop on S.I.G. policy developments concerning ICT,
- SIBC and Solomon Telekom, for provision of lunches, facilitated by Johnson Honimae and Loyley Ngira,
- UNDP Honiara sub office, for provision of conference space, facilitated by Mr. Richard Ponzio,
- Mr. Willo Brock from the Management for Development Foundation South Asia (MDF-South Asia) in Colombo, Sri Lanka for technical backstopping and advice,
- PFnet for provision of workshop materials and moderation,
- Edo Stork, Thematic Analyst ICT for Development from UNDP Fiji Multi Country Office for Moderation and Technical Backstopping,
- Robert Bokelema, Director Spectrum Management, Spectrum Management Division, Ministry of Communications for representing S.I.G. throughout the workshop,
- Katherine Peart, Regional Coordinator, e-Pacificika, for comparative situational analysis of ICT for development in Solomon Islands in the context of the e-Pacificika programme,
- All participants including those who could not attend but have maintained an interest (some have contributed inputs) in this initiative.

ANNEX 1: PARTICIPANTS AND PHOTO GALLERY

A. Workshop Participants

Participant	Occupation	Email address
David Leeming	PFnet	leeming@pipolfastae.m.gov.sb
Loyley Ngira	Solomon Telekom	loyley.ngira@telekom.com.sb
Moira Nowak	Ministry Commerce	moira@commerce.gov.sb
Fred Peter	Ministry Agriculture	Fred_peter@yahoo.com
Norman Kapun	Forum Fisheries Agency	norman.kapun@ffa.int
John Roughan	Solomon Islands Development Trust	jroughan@solomon.com.sb
Nick Unsworth	EU Micro Project Programme	snunsworth@solomon.com.sb
Alan Agassi	Rural Development Volunteers Association	rdva@pipolfastae.m.gov.sb
Atsuko Orimoto	Embassy of Japan	je2@solomon.com.sb
John Innes	Technisyst (S.I.) Ltd.	innes@technisyst.com.sb
Brian Baldwin	British High Commissioner	Bhc1@solomon.com.sb
Cornelius Rathamana	Solomon Islands Broadcasting Corporation	sibcnews@solomon.com.sb
Johnson Honimae	Solomon Islands Broadcasting Corporation	jhonimae@solomon.com.sb
Hendrik Smets	European Commission	smetsh@solomon.com.sb
Randall Billiki	Pfnet	PFnet@pipolfastae.m.gov.sb
Richard Ponzio	UNDP Sub Office	richard.ponzio@undp.org
Gilmour Pio	Solomon Islands Institutional Strengthening for Lands	gilmour_pio@hotmail.com

	Admin Programme	
Danny Kennedy	Solomon Islands Tourism Association	DiveGizo@solomon.com.sb
Mark Dennis	USPnet, University of the South Pacific Centre	dennis_m@usp.ac.fj
Katherine Peart	UNOPS/UNDP e-Pacifika project	katherine.peart@undp.org
Philip Jionisi	Civil Society Network	civils@solomon.com.sb
A K Ghema	Central Bank of Solomon Islands	akituru@cbsi.com.sb
Kenneth Bulehite	International Waters Project (SPREP)	intwaters@solomon.com.sb
Robert Bokelema	Spectrum Management Division, Ministry of Communications	spectrum@solomon.com.sb
Others included in mailing list		
Peter Wilikai	Ministry of Health	pwilikai@solomon.com.sb
Ritsu Nacken	UNDP	ritsu.nacken@undp.org
Alfred Lovanitila	Ministry of Foreign Affairs	lovanitila@hotmail.com
Richard Ponzio	UNDP	Richard.ponzio@undp.org
Rose Wale	National Council of Women	pacfaw@solomon.com.sb
Ingrid Glastonbury	Health Institutional Strengthening Programme	ingridgl@hisp.com.sb
Mariselo Asupeumane	PFnet	webmaster@pipolfastaeem.gov.sb
Frank Taisara	Ministry Provincial Government	taisara@pipolfastaeem.gov.sb
Tatek Zarou	UNDP	Tatek.zarou@undp.org
Mark Flynn	Solomon Telekom	Mark.flynn@telekom.com.sb
Edmund Gagahe	Ministry of Communications	none
Fred Ganate	Ministry of Planning	ganatef@mnpd.gov.sb

B. ICT Working Group Members

All of the above are invited to be members.

ANNEX 2: LISTING OF PROBLEMS CORRESPONDING TO CLUSTERS⁴

Policy:

- Decision makers do not know the benefits of ICT. (39)
- Government internally not prioritising purchasing ICT equipment. (40)
- No National ICT Policy/Strategy. (42)

⁴ Original problem numbers are in brackets

- Typical office culture does not promote information sharing. (43)
- Poor coordination between ICT stakeholders (providers). (44)
- Lack of information sharing between central & provincial governments. (45)
- Lack of aid/funding assistance to scale up proven models (of ICT solutions). (46)
- Lack of comprehensive data of ICT needs in rural areas. (47)
- Lack of use of ICT's to collect data in rural areas for development. (48)
- Limited data from rural areas for development. (49)
- People of SOI are not well informed on development issues through ICT's. (50)
- Unequal spread of ICT's creates digital divide. (51)
- Limited policy support from govt/civil society for ICT development. (54)

Affordable Access:

- Telecom Monopoly in SOI. (1)
- Slow/unreliable service of Telecom Operator. (2)
- High cost maintenance ICT equipment. (3)
- Radio/TV lack of broadcasting Facilities to cover entire country. (4)
- Limited Inter Island Telephone Communications. (5)
- Internet Access is not Affordable for Rural Communities. (6)
- Most SI's (>80%) poorly served (do not have access to) by ICT's. (21)
- Inappropriate use of ICT's (gaming at work, pornography). (20)
- ICT services are not affordable and sustainable in general. (52)

Networking/Awareness:

- Limited knowledge about power of information. (30)
- People don't know how to use ICT's. (31)
- Low level of awareness of potential of ICT's in general. (32)
- Lack of ICT Champions on policy level in Government. (33)
- Lack of debate and discussion in Solomon Islands on ICT. (34)
- Lack off standardisation of ICT across Govt offices and Organizations. (35)
- Low security of Information Sharing. (36)
- Failure to share and use data through ICT's. (37)
- Lack of IT literacy at Sr. Management within Organizations. (38)

Equipment/Access:

- Limited knowledge of open source software. (7)
- Low level of awareness affordable ICT solutions for people. (8)
- Limited access to affordable ICT equipment. (9)
- Inconsistent government policies for purchasing ICT equipment. (10)
- Limited alternatives to provide affordable ICT solutions. (11)
- Lack of power for ICT equipment in rural areas. (12)
- Lack of necessary ICT equipment in Rural Areas. (13)
- Unreliable power supply in Urban Areas. (14)
- Lack of ICT equipment in schools in urban areas. (15)

- Lack of ICT equipment in schools in rural areas. (16)
- Lack of community support for ICT services in rural areas. (22)
- Vandalism ICT equipment. (23)
- Computers not easily accessible. (24)

Education and Training

- IT subjects not taught in schools. (17)
- Appropriate ICT training in schools is insufficient. (18)
- People are afraid to use ICT's. (19)
- Majority of people don't know how to use computers. (25)
- Limited ICT training available locally. (26)
- Limited knowledge specific ICT skills. (27)
- Shortage of local staff with IT knowledge (in local IT suppliers, resellers, SWPP, DRG). (28)
- Available equipment/networks are underused. (29)
- ICT Training included in National Curriculum. (53)

Separate problems to be investigated:

- Lack of skill/manpower to maintain ICT's for data collection. (55)
- Beneficiaries of ICT are mostly men (80 % rural email users are male, women's influence not heard). (56)

REFERENCES

ILO (2002) Participatory Project Design to Combat Trafficking in Children and Women: Objective Oriented Project Planning (OOPP) as a Design Tool, International Labour Organization,

<http://www.ilo.org/public/english/region/asro/bangkok/child/trafficking/downloads/tia-d.pdf>

Management for Development Foundation <http://www.mdf.nl>

People First Network (PFnet) www.peoplefirst.net.sb/general/pfnet.htm

Links to progress reports, performance indicators. Document archive: including draft strategy ideas paper www.peoplefirst.net.sb/general/archive.htm

Solomon Islands Broadcasting Corporation: www.sibconline.com.sb

Solomon Telekom: www.telekom.com.sb

SOPAC & SPC (2001) Draft Regional Strategy and Policy Plan for Pacific Islands Countries and Territories, South Pacific Applied Geoscience Commission and South Pacific Commission, Pacific Information and Communication Technologies Needs Assessment and Strategy Planning Workshop, 27-31 August, <http://www.spc.int/it/ictnoumea/papers.htm>

Stork, E. (2002) Enhancing People's Participation in the Pacific Through the Usage of ICT's, UNDP <http://www.undp.org.fj/documents/ICT4DEV/EnhancingPeopleParticip.zip>

UNDP e-Pacifika Programme: www.undp.org.fj/RAS-99-064.htm

UNDP Fiji Multi Country Office, ICT for Development web pages: www.undp.org.fj/ICT.htm

Author Bios

Edo Stork graduated with a Masters degree in Computer Science (Free University Amsterdam, the Netherlands - www.vu.nl), and now works as Programme Officer Thematic Analyst ICT for Development in the UNDP Fiji Multi Country Office (www.undp.org.fj) covering 10 countries in the South Pacific: Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Palau, Solomon Islands, Tonga, Tuvalu and Vanuatu. His work involves project development, advocacy and networking, support for country office operations and support for the UN function in the 10 countries above. Previously, he has worked with ICTs in Swaziland, Peru and Fiji.

David Leeming graduated with a BSc in Electro-Acoustics from Salford University in the UK. Before coming to the Solomon Islands, he was a research scientist at Senior Scientific Officer level, UK Health and Safety Executive, researching Quantified Risk Assessment for industrial major hazards and the transport of dangerous goods. He has worked in the development sector in the Solomon Islands since Feb 1996. He worked as a Volunteer Teacher (VSO), Isabel and Rennell provinces, Feb 1996-June 99 and as Webmaster, UNDP/UNIDO project in the Solomon Islands Ministry of Commerce June 99 - Oct 2000. He is currently Technical Advisor, People First Network.