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"Bridging the Digital Divide"

April 28, 29 and 30, 2003

Tuvalu National ICT Workshop Report

This report documents the discussions and outcomes of the workshop held at the Vaiaku Lagi Hotel, Funafuti, Tuvalu. While explanatory notes have been included on the process used at the workshop and the objectives of information and communications strategy development, the findings of the workshop are presented as much as possible as they were at the workshop to avoid the authors misinterpreting the results.

Tuvalu National ICT workshop

"Bridging the Digital Divide"

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Summary of Workshop Results

A workshop involving thirty-seven stakeholders (government, private sector and community organizations) was held at the Vaiaku Lagi Hotel, Funafuti, Tuvalu April 28, 29 and 30, 2003.

The workshop was based on the strategic planning process "Future Search". The process has been used in a variety of circumstances, in the private sector, governments and non-government organizations in developed and developing countries. This methodology was chosen for e-Pacifika because of its' emphasis on collaborative action planning.

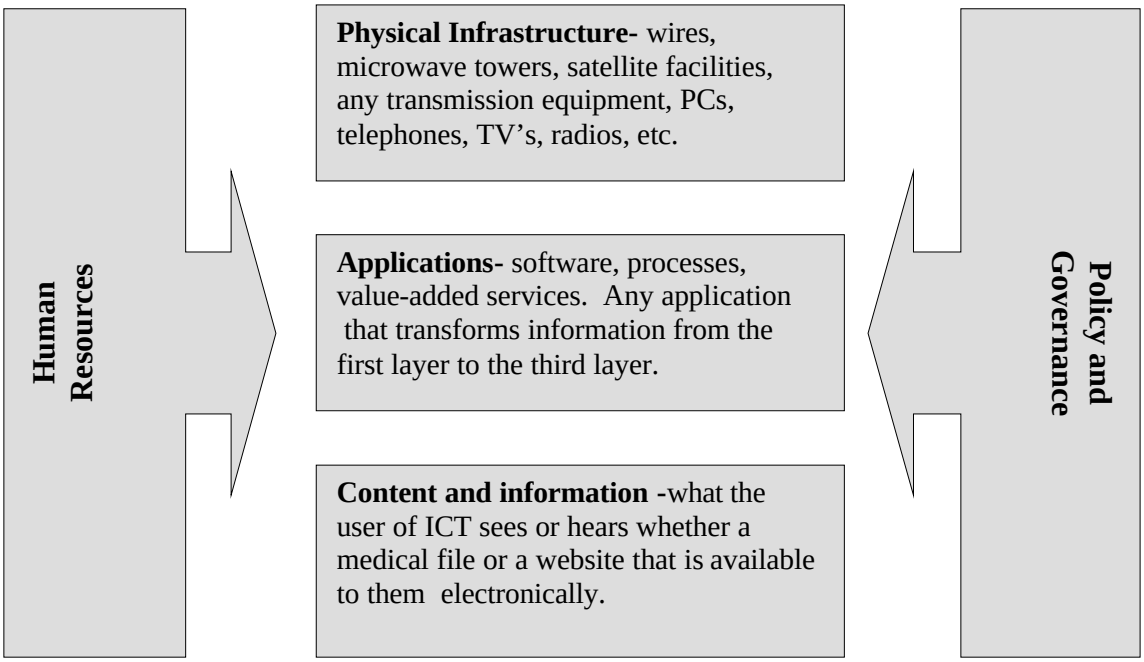
The common goals for the future that the group identified include:

- Promote principles of good governance.
- Promote public awareness of the use of ICT to result in better informed citizens (transparency).
- Use ICT to improve quality and standard of life through access to better opportunities and creating job opportunities.
- Improve ICT infrastructure to reduce remoteness between islands in Tuvalu and between Tuvalu and the rest of the world. Increase information accessibility and availability, using appropriate technology, to all.
- Establish affordable, accessible and reliable Internet and telephone services for all islands.
- Increase reliable transport of information, materials, equipment and maintenance supplies and personnel.
- Increase ICT human resource development. One example is upgrading of skills and knowledge of ICT specialists to sustain infrastructure.
- Secure and sufficient funding is available for ICT development with a goal to becoming self-sufficient. Encouraging/increasing foreign investment and revenue.
- Strengthen commitment at all levels. For example, policy makers should have the political will to develop ICT; strengthen the ICT Task Force; effective ICT policies; effective ICT strategies (action plan); constant revision of national policy and strategic plan; cross-sectoral representation on the ICT Task Force.
- Reduce duties on ICT equipment.
- ICT can support decentralization of government services.

Action plan ideas to support the achievement of the common goals are recorded in this report.

Five working groups: infrastructure, awareness, human resources, policy formulation and use of ICT to improve opportunities. These are groups of volunteers that have agreed to work toward the goals identified and can serve as additional resources to the National Task Force.

Information and Communications Technology Defined



This diagram is intended to facilitate discussion on the issue of information and communications technologies.

The Layers: Infrastructure, Applications and Content

The layers are intended to represent the different aspects of ICT. The bottom layer is infrastructure and includes all physical aspects of electronic/telecommunications networks intended to relay or communicate information to people. The middle layer consists of services or products that turn the electronic signal or data into useable information. The third layer is the actual content or information. It is content and information that drives the use of technology and it is the reason for using technology in the first place. None of the layers stand-alone, all are inter-related to each other.

The Side Bars: Human Resource Development, Policy and Governance

These are components of ICT development so critical that they must be acknowledged. There are other factors but typically they can be categorized into either of these two. For instance, money to finance ICT development is often a case of policy and human resource priorities in both the public and private sectors.

The Objective of ICT Strategies

Information and communications technology (ICT) strategies can achieve a number of specific objectives. Specifically:

- Strategies identify common goals and practical ways to achieve them. The underlying concept is very simple: the more people have the same goals and targets, the more likely it is that those goals and targets can be achieved.

- Often there are "pockets" of ICT activity but no real continuity. An ICT strategy can bring this continuity.

- An ICT strategy provides a framework for ensuring that as much as possible initiatives are target to a common goal (something to rally around).

- An ICT strategy can help sort out project priorities by identifying the common goals of most importance to the country.

- ICT strategies are also instrumental in building awareness among society.

- A national ICT strategy also tells outsiders, foreign investors and trading partners for instance, that the country has a common goal and a plan to achieve that goal.

The important characteristics of a successful national ICT strategy are:

- It is practical in that it can be implemented using identified and available resources and expertise. A comprehensive and detailed strategy serves no purpose if it cannot be implemented.

- A champion: someone who is vocal and has authority and respectability within the community

- Strategies need to be revisited and revised. Typically ICT strategies start out general but become more refined and focused over time. Some country examples of ICT strategies include:
  India, software, back office functions,
  Ireland, software services,
  Singapore, use IT to become the business centre of Asia,
  Canada, connectivity: "most connected country in the world",
  Japan, broadband connectivity,
  South Africa, using ICT as an enabler of social development
  A strategy should be a living document that can be adapted as circumstance change.

- A group of multiple stakeholders to oversee implementation and revisions to the strategy.

How the National ICT strategy fits with other strategies

The Pacific regional ICT strategy, Pacific Islands Information and Communication Technologies Policy and Strategic Plan (PIIPS) provides a framework for regional development. There are regional initiatives, particularly on the policy side, that aim to

achieve the objectives outlined in that strategy. There are regional projects (University of the South Pacific, Fiji School of Medicine, possible telecentres) that also adhere to the principles and objectives outlined in the regional strategy.

It is likely that National ICT strategies will be more focused on individual country strengths. Some of the policies, principles and action items in the regional strategy will resonate more strongly with some countries than with others. In a sense, the National Strategies will be a further refinement of the regional strategy. In fact, one of the action items in the regional strategy is to develop national strategies.

Individual companies and government departments can again have specific ICT strategies that reflect their requirements. There is no conflict between these strategies rather they are drilling down into the individual requirements of organizations that are all part of the community/nation.

The Future Search Process used in e-Pacifika National Workshops

Formal strategic planning processes are used extensively in governments and the private sector around the world as the basis for business and development plans. The development of a strategy is a precondition for planning: you need to know where you are heading before you can plan how to get there.

"Future Search" is a strategic planning methodology that has been developed over the past twenty years by a number of researchers from around the world. The process has been used in a variety of circumstances, in the private sector, governments and non-government organizations in developed and developing countries. This methodology was chosen for e-Pacifika because of its' emphasis on collaborative action planning. Workshops involving presentations and lectures are common in the Pacific region but often it is difficult to use these sessions to initiate activity without regular and ongoing follow-up and support. The scope of the e-Pacifika project does not allow for sustained support in each country so the workshops must both define the priority activities as well as get them started. Future Search is designed to do exactly that.

Future Search is a planning process that:

- Leads stakeholders to create and act upon a shared future vision for the nation,
- Enables all stakeholders to discover shared intentions and take responsibility for their own plans, and
- Helps people implement a shared vision that already exits.

It is not a substitute for rational planning procedures, rather it is an umbrella for building commitment. It is not a conflict resolution or problem solving event. It is a forum that allows people to work through the dynamic issues that stand in the way of implementing anything.

The workshop is an encounter with the whole - self, community and world. It sets up a situation that involves the whole person on many levels. It asks people to share the work, move around, make their wishes visible, and live with uncertainty. In a future search people experience a different version of "reality" than the one they are used to. They talk over issues they have not raised before with people they have never met. They dramatize ideal futures as if they have actually happened, thus anchoring them in first hand experience. They identify what they really want. It is common for people to voluntarily commit to actions made

possible only because of the other people in the room. These workshops lead to: participants taking personal responsibility; fast implementation of action plans, and; lasting relationships across key sectors of the community.

Workshop Participants

The process starts with the planning of the event and ensuring that the "whole system" is in the same room. This means any stakeholder, or potential stakeholder, of the issue is invited. Guidelines suggest that the group should be no larger than 64. Too small a group (less than 24) may have too much "group think" and not enough diversity. Any larger than 64 it becomes unwieldy for the process to work effectively. The basic premise is that everyone has some knowledge of the issue and can provide meaningful input. It is premised on the understanding that the current situation is not working and the people with the knowledge and the power to make changes are within the room.

Over sixty people from all sectors of society were invited to the workshop. People are accustomed to workshops where they can come and go. Strategic planning requires involvement from start to finish. As a result, it is not uncommon to experience some "drop-out" as people realize that they cannot make the commitment to the whole three days. Thirty-seven people attended the workshop for its duration.

Official Opening

Father Camilo began the official opening with a prayer.

The Honourable Minister of Health, Education and Sports, Dr. Alesana Kleis Seluka opened the workshop by encouraging participants to share their views and look to the future.

Workshop Session Results

Most of the effort in the workshop is done in small, self-managed groups, of no more than eight. The workshop strives to find "common ground". It does this by reviewing the past, the past that everyone shares. This past is reviewed from a personal, global, and national issue perspective. Once we have identified the past we acknowledge our common history and learn from past mistakes. Everyone is heard and all views are valid.

The Tuvalu National History recorded below is copied directly off of the large sheets of paper on which participants were asked to write down their recollection of the history of information and communications technology in the Tuvalu and from their stories. Some people recorded dates, others notable events or technologies.

Pre 1970 to 1977

- Mail is sent by boat
- Radio Tuvalu is available on MW band
- Photocopiers, telephone and mail are in use but manual duplicating machines are also still in use
- Longer distance messages are sent by morse-code and telex
- Communicate within a village by selecting someone with a big/loud voice or banging on an empty biscuit tin
- CB radios appear in Tuvalu
- A local newspaper is published
- Hurricane Bebe hit Tuvalu and was the most intense ever on record

1978 to 1992

- Radio Tuvalu is introduced
- Queen Elizabeth visited Tuvalu
- Video facilities are introduced (in the 80's in Funafuti, 90's in Vaitupu
- The bank introduced electronic money transfer
- 1987 the Tuvalu Bible was printed
- Information explosion due to the Internet

1993-Present

- Linux servers become stable and are being used in commercial organizations
- Y2K compliance
- Establishment of Tuvalu Ministry of ICT
- Television introduced in Tuvalu
- Tuvalu uses domain name ".tv" commercially
- Wireless networks are being used.
- Computers being introduced in secondary schools
- DHL introduces "Fastpost" service.
- The government sponsors IT training
- Communications facilities (voice and data) are installed in all of the outer islands
- Introduction of USPnet
- Training Institute established

Presentations on the History of ICT in Tuvalu (in order of presentation)

Group 1: The participants at the workshop come from diverse backgrounds. There is a great deal of experience in ICT use among the delegates including CBs, VHF, morse-code, telex in the past and computers, fax, satellite forms and e-mail. Communications has become simpler and faster (morse-code versus fax and e-mail). It has also become cheaper (e-mail is cheaper than telex). Reliability has been improved because the means of communicating are more diverse.

Group 2: Globally, personal computers and varieties of software become more readily available. Mobile services, videos and multi-media followed. Developing and maintaining

satellites are essential for communications worldwide. High tech equipment being used in war shows the potential misuse of technology. The introduction of computers has increased efficiency in all types of organizations worldwide. HIV/AIDS provides a primary example of how ICT can be used to get worldwide support to fight against disease. Internet access provides means to access information easily. They are now a greater variety in choices in where to get information. Tuvalu notes the introduction of TV in Fiji and this creates a strong interest in Tuvalu developing its' own TV network.

Group 4: In 70's communications is difficult in Tuvalu. 1993 to now: many participants first used PCs in this time. Interactive computer games introduced. Tuvalu gets on the Internet (.audiochat). A number of new technologies were being introduced and used. Development and introduction of technology was quick during this period.

Group 7: Globally, events of the 70's were recorded in Tuvalu through radio. The computers were introduced to Funafuti only in the 80's. The Tuvalu ISP was established in the 90's. Tuvalu had no problems with Y2K. The implications of this history Tuvalu needs access to information locally and globally. Information to the public needs to be improved. Radio is still the main information source in Tuvalu. The public still has limited access to information and may need increased access to newspapers.

Group 5: Globally, in the 70's in Tuvalu radio, telex and morse-code was being used to transmit world news. In the late 70 and 80's with computers people in Tuvalu learned more about world events: nuclear disaster in Russia, Falklands war, HIV/AIDS, coup in Fiji, etc.. The death of Princess Diana was broadcast on TV. Technology can inform people of events taking place. Time and technology are key factors.

Group 3: National development included communications that were out of order because of power outages. Maintenance people needed to be trained. Current technology can be easier and faster (typewriter versus PC means less messy, faster, easier to correct mistakes). Improved air transportation (air field and airplanes) have made mail based communication much quicker. Videos are now more affordable to families. Satellite videos can now be available in outer islands. Tuvalu is up to date on internationally events.

Group 6: National development trends included better communications facilities becoming available. Hurricane Bebe destroyed most communication lines in Funafuti and no international communication was possible. The destruction allowed for installation of newer and better technologies. 1993 until now there has been a significant jump in development of services: communications to outer islands established; PCs introduced in secondary schools; increased ICT training available; more video and video games introduced; more workshops held on ICT issues; communication is now much faster.

Present Trends and the "Mind Map"

Once the group reviewed the past we then look at the present. We mutually discover the trends that are now impacting the issue. In this case what trends are affecting the achievement of further ICT development in the Tuvalu. This tends to be a messy "mind map" that the workshop then analyzes and attempts to make sense of what has been stated.

The trends identified on the "mind map" included the following (in no order of priority). The list is long because every comment was put on the "mind map". Participants were then given eight "dots" to stick on the trends that they feel were most important. This process led to the establishment of priority trends by votes. The top trends are in **bold.**

Trend	**Implications, impacts and or examples of issues affecting bridging the digital divide in Tuvalu**
Economy of the country	The current status is an impediment. There is potential for improvement.
The relevance of keeping up with technology "why do it"	Keeping up with others (Japanese and Americans) in Funafuti increases the digital divide within Tuvalu.
Funding	**For maintenance and new technology.**
Training	**For maintenance personnel.**
Competition	In services between telecom and the ICT department of government.
Need PCs in primary school	
Remoteness of Tuvalu	**Remoteness from other countries and within the islands of Tuvalu.**
Education	**On the use of new types of technology.**
Human Resources	Affects availability and capacity.
Identification of appropriate systems	**Identification of appropriate content, feasibility, standardization, quality and reliability of suppliers.**
Donor harmonization	Needs to be improved.
High duty on ICT equipment	
Absorption capacity of technology	Low income equals low absorption of technology.
Language	ICT equipment and instruction is in English whereas Tuvaluan is more common among the general public. Literacy in English, particularly in older people is an issue.
Distribution of national wealth	
Culture	Exposure of Tuvalu to the world and vice versa. Quality of ICT entertainment.
Employment opportunities	ICT has the potential to improve employment levels.
Speed of change of technology	Ability to adopt and introduce new software and hardware is impacted by the quick pace of change.
Availability of spare parts	For all forms of ICT equipment.
Reliability of system	
Harsh physical environment and extreme events like cyclones	Hard on equipment. Impact of disposal of equipment on the environment.
Political will to pursue ICT	**Legal framework. Lack of equity in ICT distribution. Establishing ICT as a priority.**
Awareness	Of both users and the public of the uses of ICT.

Analysis of the Mindmap

The stakeholder groups were asked to review the mindmap and make sense of the trends and implications then present their results back to the whole group.

User Group 2: The group identified the major issues as being training, language, funding, and the identification of appropriate systems. At the base of these issues is the political will to pursue ICT. The government should have an ICT policy to include tele-health, tele-education, tele-village. Government should help build awareness. The group would like to see the development of software in Tuvaluan language. Local capacity should identify what is needed in systems. Standards need to be adopted.

Infrastructure Group: The major issues/trends identified were political will (which impacts funding and awareness). ICT is not a priority now. By promoting public awareness and policies then people will be more likely to use ICT. If ICT is prioritized then funding can be requested from within government and from donors. Infrastructure needs should be identified locally and needs presented to donors. Outer islands people have not had much experience with computers. As people become aware they will want to use it. Radio can be used to increase awareness. The capacity exists to create short programs. An ICT newsletter could be created as well to help inform the public. Training is related to awareness. More training is required in maintenance and in training trainers. Remoteness has to be faced as a factor but technologies are being developed to help deal with this. High duty (24%) is a major concern because it affects the growth of ICT both in telecom facilities and IT equipment. This also affects the availability of spare parts which in turn affects the down time of systems. Competition is evident between government and telecom but Tuvalu is too small for competition. The two interests should try to harmonize services.

User Group 1: Funding is the first priority because it is needed to make anything happen. Training is the next priority but funding is needed to increase the amount of training. Education is the third priority. Political will is answerable to all of the previously identified issues. The government should be providing the funds for training and education. Language is the next priority. Increased literacy is required in English because of the prevalence of English in ICT particularly Internet. English needs to be taught in primary schools. Distribution of national wealth impacts who can afford ICT.

At lower priority is awareness of ICT, the ability to adopt and introduce hardware and software. The speed of change of technology affects this. Exposure to the world and the promotion of Tuvaluan culture must also be considered.

Policy Group: Education in ICT is at the tertiary level. Future targets should include primary and secondary education in ICT. Political will is the second priority. Politicians need to be made more aware of ICT. The Minister stayed for the whole day yesterday and that is what is needed.
Third priority is the identification of the appropriate system. Some of the systems adopted have not been appropriate as demonstrated by the frequency of break-downs in the outer islands. Need better advice (technical, maintenance and political levels) on systems. Fourth priority is awareness. Now there is some training but for future there should be continued training and more donor coordination on this. Fifth priority is relevance and relates to

appropriate systems. The final issue is remoteness of Tuvalu. Funafuti has adopted technology well but more effort has to be made to extend ICT to outer islands. Workshops such as this help promote ICT.

Private sector: Most important issue is political will. The politicians need to better understand ICT to encourage policy development and implementation. Funding is the second most important issue. Education, particularly, formal education in schools is important. Curriculum needs to be developed. Many people have typing skills and would be able to use PCs. Internet training for the public would encourage people to use e-mail. Human resources is important to increase the capacity for the people directly involved in ICT to help increase the reliability of existing services. High duty on ICT affects adoption. Duty should be abolished. If the private sector makes profit then government will get their share anyway. Remoteness affects the cost of transportation but must be addressed to ensure access.

Civil Society Group: Two parts to presentation: external trends (civil servants perspective). Distribution of national wealth is the priority issue. Education, human resources, relevance and political will were all factors identified. Right now Tuvalu is decentralizing, power, telephone and fax is widely available. Many schools have received PCs but they are not being used. Human resources training is available. Job creation is happening in government but there may not be enough trained people to fill the posts. Relevance and political will can be assisted by workshops like this that can build capacity.

The second part of the presentation dealt with the group's interpretation of the voting on the mindmap. The group highlighted the issues that were most voted on. Of most importance is the political will from the government perspective. The private sector identifies high duty as being of most importance. The government would like to see the digital divide bridged. Government wants to increase taxes to help finance this bridging. The private sector wants the same objective achieved.

Administrators' Group: The group created an octopus with training at the head. Training is the priority issue. Training requires funding and government support. There needs to be a training policy as well as awareness. ICT education should be introduced at the primary school level. Transparent policy is also required.

Satisfactions and Regrets

To come to terms with events of the past to go on to the future, the participants are asked to review "satisfactions", things or events of which they are proud and "regrets", things or events of which they are sorry.

Some of the "satisfactions" include: USPnet being in operation; Internet connections; installation of satellite phone in the outer islands; accessible phone/fax in Funafuti; Internet café for those who cannot afford computers; more frequent international flights that bring information; more frequent boat trips to outer islands; satisfied with fax, email, phones, browsing, printers, satellites, scanners, electricity; availability of infrastructure; government focusing priority on ICT (the development of a strategy and plan); we have some qualified personnel; exposure to ICT awareness workshop; donors are helping provide ICT; this is the 1rst ICT workshop; ICT is advancing (radio to telephone, fax and Internet); there are increased job opportunities in ICT; people are more informed; people are generating income from ICT (i.e. ".tv", Internet Cafe); knowledge and skills are being developed; attitudes and

behaviours are changing and people are learning from the new information; new information is available on agriculture (shorter coconut trees and faster growing pigs); the development in Tuvalu is visible in the buildings and infrastructure; interest of international community in helping the region; government's commitment; radio Tuvalu carries BBC news; National ICT Task Force has been established; secondary schools are using computers; literacy is improving, and; availability of funding from donor and governments.

Some of the "regrets" include: Internet is not available to outer islands; telephone lines are limited and there are frequent breakdowns; radio services should be improved by extending the hours and increasing the amount of educational program; television service is no longer available including access to CNN, BBC etc.; small capacity (max 32 lines) and expensive Internet access; unreliable telecom service; insufficient spare parts in Funafuti to do repairs; limited users on line; lack of research and development in appropriate and affordable ICT infrastructure; use of old equipment in telecom network; no mobile phones and the need to make extensive new technology to provide mobile; no fibre optics because of the cost of joining the Southern Cross consortium; no pre-paid phone services; shortage of trained ICT personnel; accessibility of ICT services (high duty and slow speed); lack of resources and funding; not enough qualified personnel to assist with ICT awareness; public is not as aware as they could be; slow development of ICT; unreliable communications; lack of funding; distribution of national wealth for ICT development; radio services are not available in the outer islands; power is frequently cut off and surges damage electronic equipment; brain drain after extensive training; 80% of population does not have an income and cannot afford ICT; expensive transportation services to Fiji; need more radio programming; no TV service anymore; giving away the ".tv"; equipment that becomes waste because there is no where to get rid of it and it only lasts a few years, and; not enough funding for training.

The mandate of the ICT task Force which was set-up in 2002 is to explore ICT issues of all types: regulations, policies, projects, etc.

Future Scenarios

With a foundation of where we have come from and where we are now, we then dream and define where we want to go. The various groups create a future scenario that they consider is feasible, desirable, and motivating. The date is April 29, 2023.

A summary of the presentations by the groups follows.

Group #1: Presented a diagram showing a classroom which depicted the need for additional classrooms. Several new school rooms are planned in the next few years on several islands. Their vision is that there are no more new classrooms. Rather that the classroom could be outside, under a tree or in your bedroom. ICT is team work and all of the delegates at the workshop need to contribute ideas on how to reach this vision. Laptops will be very cheap ($2.00). Culture and traditional skills are maintained. Technical and maintenance staff are well trained. An ICT university for Tuvalu is established but it is not a physical structure, it is facilitated by laptops.

Group #2: Their vision includes – free Internet services; a Tuvalu TV station; mobile phones are free; teleconferencing is available and being used; alternative electricity supplies are available (solar power, wind, etc); tele-health services are in use; prepaid phone services and card phones are available; the economy is stable (fisheries and tourism).

Key accomplishments since 2003 include: large capital reserves exist to ensure reliable operation off systems; ICT programs care integrated into the curriculum; proper disposal policy is in force in Tuvalu; wider exposure to selective foreign investment opportunities; highly qualified technical staff; connectivity nation-wide (linked globally and nationally).

The major barriers that will be encountered include: ensuring stakeholders all play their roles. This problem can be alleviated by developing a national ICT strategy and plan. It should be monitored and directed by an ICT Task Force. The Task Force should include all major stakeholders. Commitment is required from all stakeholders to make progress.

The group then presented a drama. There is a tourist in Nui sitting on the beach. He has a webcam and a mobile phone. He is the CEO of a company and decides that he wants to stay in Nui because it is paradise. He will run the company from a distance and will take care of his heart problem through tele-health available. He is initially concerned that working at a distance will be expensive but when he finds out that mobile and transmission services are free he tells his assistant to pack up the office and move to Tuvalu.

Group #3: Presented a diagram showing the future. The barriers now are remoteness which will be overcome by bigger planes and a national Tuvalu air service, plus more ships. The second barrier is high cost which can be reduced by having another company offer lower cost service. The third barrier is reliability but in 20 years there will be professional technicians. The forth barrier is funding and their hope is that there will be funding.

Group #4: Presented a TV clip. They are introducing appropriate technology to Tuvalu. The system is user and environmentally friendly. At the Matagagali Bar in 2023. Identification and eligibility of patrons is made by wrist smell. Additional personal information (marital status, education) is also available through smell. Already ways have been devised to trick the system demonstrating the need for reliable systems. The control of information is not yet protected so the technology can be used to harm. The point of the drama is to reinforce that the characteristics of affordable, appropriate, friendly to the environment are the key factors for technology development in the future.

Group #6: Presented a diagram showing the future. Tuvalu has developed its own resources. Foreign investors would be invited to invest in Tuvalu by investing in Tuvalu's airspace. The investors will rent space to keep satellite earth stations. Very large amounts of capacity will be available. Distance education between islands is possible. Good service quality and good governance (accountability and transparency) are required to achieve the goal. The earth station would have a million lines leased by foreign investors. The private sector will be able to buy and sell on the Internet and businesses are using ICT to be more efficient. The major barriers are inadequate research into who are the reputable investors. A task force should be set up to work with overseas consultants.

Group #7: Presented a diagram showing the future. International and domestic airlines are operational. Tuvalu has a 24/7 radio station as well as a TV station. Internet is available to outer islands. At the touch of a finger you can do things from home: order medical prescriptions and have it delivered or work from home. Automatic teller machines are available. More shipping lines are available to have more frequent visits (more than monthly). The major barrier to the future vision is funding which could be overcome by strong political will and commitment. Overseas partners will need to contribute funds.

Common Ground

After considering the past, present, and future, the workshop then proceeds to find the "common ground". This is where everyone at the workshop finds agreement on basic concepts and identifies projects to achieve and/or support them. The "common ground" should be principles and values that: relate to ICT development, and: can stand the "test of time" (they will be understood tomorrow or next year).

Some goals cannot be agreed in terms of scope or wording. It is not that people do not agree with the underlying goal but cannot agree on wording or actual meaning. Everyone in the room has to agree with the goal or it becomes "not agreed". Not-agreed goals included: "affordable access, anywhere, anytime; customers are king and queen" because it was too broad; "increased accessibility to sustainable service providers" because the meaning was unclear and accessibility was covered in another value.

The common goals and values that were agreed include:

Promote principles of good governance.

Promote public awareness of the use of ICT to result in better informed citizens (transparency).

Use ICT to improve quality and standard of life through access to better opportunities and creating job opportunities.

Improve ICT infrastructure to reduce remoteness between islands in Tuvalu and between Tuvalu and the rest of the world. Increase information accessibility and availability, using appropriate technology, to all.

Establish affordable, accessible and reliable Internet and telephone services for all islands.

Increase reliable transport of information, materials, equipment and maintenance supplies and personnel.

Increase ICT human resource development. One example is upgrading of skills and knowledge of ICT specialists to sustain infrastructure.

Secure and sufficient funding is available for ICT development with a goal to becoming self-sufficient. Encouraging/increasing foreign investment and revenue.

Strengthen commitment at all levels. For example, policy makers should have the political will to develop ICT; strengthen the ICT Task Force; effective ICT policies; effective ICT strategies (action plan); constant revision of national policy and strategic plan; cross-sectoral representation on the ICT Task Force.

Reduce duties on ICT equipment.

ICT can support decentralization of government services.

This common ground can serve as a "filter" for future ICT projects. That is, if a project is being considered it should promote one or more of these goals.

Projects and Big Ideas

At the same time that the group develops common ground they are asked to identify "big projects and ideas". These included: establish quality radio station;TV station; ICT mega-shop; radio station, ATMs; international and domestic airlines; shipping line; ICT university/institute; satellite earth station; mobile phones; scholarships with more than 40 places; free connectivity for all; train local technicians- spare parts readily available-explore satellite other cheaper options- charge the Task Force to revise the existing agreement; produce a local newspaper; provide quality and informative programs; reduce customs tariff; extension of ICT office services; identify champions and awareness; organize ICT workshops on each island; provide ore ICT scholarships; ICT Task Force should monitor, research and develop ICT; government prioritize ICT development in terms of funding and training.

Action Plan Ideas

Stakeholder groups were asked to choose the goals most relevant to them and identify short term and long term action items. These included:

Policy Group
Promote principles of good governance: In the next three months (May to July 2003) involve grassroots and stakeholders in consultations, obtain technical assistance, use resources of the Attorney General's office, obtain funding to develop an action plan and ICT policy. Use workshops and awareness programs to achieve this. The ICT Task Force would help implementing the strategy and policy. The policy and action plan would need to be discussed and approved at the Development Coordinating Committee (Permanent Secretaries from all department) then by Cabinet. In the longer term it should be put into legislation which would require Parliamentary approval. In the shorter term should review existing legislation. Aim of promoting principles of good governance would be to ensure stakeholders take responsibility for actions and reduce corruption and promote transparency.

Infrastructure Group
Improve ICT infrastructure to reduce remoteness between islands in Tuvalu and between Tuvalu and the outside world.

Short-term action:
Repair existing infrastructure and this would involve TTC (telecom), ICT (dept), and TMC (Tuvalu Media Corporation). This should be done by July 2003.

Secure spares and back-up equipment by Sept 2003 which would involve TTC, ICT, TMC Ministry of Communications and the government.

Connect Amatuku to ISP-Tuvalu. ICT should do this by May 2003.

Upgrade phone lines to Amatuku. TTC would be responsible for this and it should happen by July 2003.

Longer-term actions:
Upgrade and increase phone lines to outer islands. TTC should be responsible for this over the next two years.

Internet access for outer islands. ICT Tuvalu PC Tech and TTC will all need to be involved in doing this over the next 2.5 years.

Repair the am radio station. TTC and TMC should do this over the next year.

Private Sector
To promote public awareness of the use of ICT which results in better informed citizens (transparency). The major activity would be the reviewing of plans. Short term actions include providers of ICT services to develop programs on ICT public awareness. They should do this within 2 months. The providers of ICT services would cover the cost of the programs. The longer term action should include additional workshops. Should be an ongoing program.

User Group
Improve ICT infrastructure to reduce remoteness between islands in Tuvalu and between Tuvalu and the outside world. Actions include: improve solar power systems; add more telephone lines within the islands and to the outside world; more trained personnel to ensure reliability; install more satellite dishes; increase availability of maintenance (2 or 3 islands could share to reduce delay in maintenance work).

Administrator's Group
Establish affordable, accessible and reliable Internet and telephone services for all islands.

Actions include acquiring qualified staff to work on each island. Request exception for duty on ICT equipment. Regular visits for maintenance on each island. Affordable system should be in place to allow nationals to easily access ICT. Look for available funding.

User Group 2
Use ICT to improve quality and standard of life through access to better opportunities and creating job opportunities. Actions include: improving tools and techniques and identifying the information that would be needed in Tuvalu. Information particularly related to land

issues (trees, crops, vegetables). Once the information is available it should be printed because radio only broadcasts once.

Civil Society
Improve ICT infrastructure to reduce remoteness between islands in Tuvalu and between Tuvalu and the outside world. Actions include: train local technicians using expertise from the region. Will need help through donor or with an attachment scheme with telecom. Mid August is the target. For the longer term they need advice from the infrastructure people.

Increase ICT human resource development. Actions include: qualified people to get it up to date. More frequent trips to outer islands. In the long run should increase scholarships, 10 per year so that over 3 years every island has qualified maintenance personnel on the island.

Strengthen ICT Task Force. Actions include: lobby for increased membership on the TF, particularly private sector. Strengthen ICT department and have them advise on all new ICT acquisitions so that maintenance of equipment will be more effective and less expensive. Need approval by ICT TF. ICT TF could also lobby for reductions in duties. In the longer term the TF should establish standards and set a waste disposal policy for ICT equipment.

Out of these presentations it was clear that there is interest in five working groups: infrastructure, awareness, human resources, policy formulation and use of ICT to improve opportunities. These are groups of volunteers.

Infrastructure: David Kilei, Taukiei Kitara, Paul Elisala, Talia Kofe, Semu Malona, Paul Alapati, Kitiona Tausi, Leneuoti. Maatusi, Letasi. Lulai Atamalu Faleasiu	**Awareness:** Taukave Poolo, Taai Katarake Nusipepa. Tinapa, Isala Tito, Leata Loleni., Atamalu Faleasiu Sele Kaitu, Katalaina Kokea Malua, Ariera Fagalele, Leitusi Ieleama, Tui Letueti Losi, Tilama Logo, Siaufisi Kailima Amilina H., Pule H., Kivao, David Kilei Talia Kofe, Lionola Eliapo
Human Resources: Rev Kitiona, Siaufisi Kilei, Sele, Semu, Lupeti, Father Camilo Atamalu, Leata, Taai, Leitusi	**Policy Formulation:** Isala Tito, Kitiona. Tausi, Letasi. Iulai Sele, Elisala. Pita, David Kilei, Katalaina Kokea Nusipepa. Tinapa, Atamalu Faleasiu
Use of ICT to Improve Opportunities: Hilia Taemanu, Luke Paeniu, Taukiei Kitara., Lionola. Eliapo. Losialofa Kofe, Sivaitui I., Amilina M.Pule H., Tui L, Kivao A, Katalaina Malua Taukave Poolo	

The Infrastructure group has appointed ICT as the Secretariat. The first meeting is Sunday. They will act as technical advisors to the National Task Force. They will develop a newsletter on new ICT technologies that are suitable to Tuvalu. Infrastructure mailing list subscribe to infra@tuvalu.tv for online discussion.

The awareness group has set a meeting schedule. They will be looking for government approval and funding.

Policy Formulation work group is meeting today during lunch. In this meeting they will vote for chairperson and secretary. The group will seek and acquire funds. The group will request a policy workshop with all stakeholders.

ICT for opportunities group has half its membership from the outer islands and presented goals.

Human resources group will try to identify needs areas and let donors know. The group will meet next Monday at 5. Father Camilo will be the coordinator and Lupeti Fihaki,USP will be the Secretary.

Paul Alapati has agreed to bring forward the recommendation that the ICT Task Force be remandated, consider additional membership and develop links between the working groups and the Task Force. Secretaries of each group will contact Paul to provide support for the recommendation to the Task Force.

Terms of Reference Micro- Projects
e-Pacifika: Facilitating National ICT Strategies for Development

Objective
The micro-projects financed under e-Pacifika are intended to build upon the action items identified in the e-Pacifika National Workshop. The National Committee/Council is requested to seek micro-project proposals that will have a long-term positive impact on ICT development in the country. ICT development can involve increased awareness or usage of appropriate technology, policy formulation and implementation.

Description and Criteria
The criteria listed below are provided to assist in the preparation and evaluation of proposals.

Due to budget limitations e-Pacifika, and to ensure that all countries benefit, can only allocate a maximum of USD$7,000 in each country. This allocation per country could be dispersed to one project or several. The funding is not earmarked for each country and will only be disbursed for approved proposals. These funds should constitute only a portion of the total micro-project budget. Specifically, it is expected that other contributions, either as cash or in-kind form at least 40% of the total project budget. Proposals, which can provide higher levels of other funding, will be viewed favourably.

Where possible and practical the National ICT Committee/Council will be asked to vet the proposals and make recommendations before the proposal is submitted to
e-Pacifika.

In-kind contributions include: time devoted to the project by persons who are not compensated in any other way for their work on the project and/or donated space, services or supplies directly related to the implementation of the project.

Only non-government or not-for-profit organizations are eligible to receive funding under this program.

Project proposals are evaluated on a first-come first-served basis.

Sustainability – the initiative started will have a long-term positive impact for ICT development in the country. Applicants are requested to provide a few paragraphs outlining how the proposed project will benefit the community and help promote ICT development.

Impact – there is an identifiable impact towards furthering the action plan identified in the National e-Pacifika Workshops. Preference will be given for projects that impact the community at large rather than particular interests. Social impacts will be deemed more valuable than the acquisition of hardware and as such this funding may not be used for hardware purchases.

Duration- the portion of proposed project financed under e-Pacifika is expected to be of short duration (not exceeding six months) and initiated immediately upon approval by UNDP/UNOPS.

Partnership – proposals involving multiple partners (private sector, NGOs, Government or other civil society) are highly encouraged and will be given preference. Proposals that involve cooperation between organizations within three or more of the countries participating in e-Pacifika are also encouraged.

Capacity building – proposals that will further develop human resources needed to promote ICT are also encouraged.

Reporting
Recipients of funding will be required to provide a status report of funded activities within three months of receipt of funding.

Evaluation Table
A committee formed and chaired by the Regional Coordinator of e-Pacifika will evaluate the proposals based on the criteria and scores listed in the table below. The Committee shall be comprised of:

Mr. Murray Doehler, Senior Consultant e-Pacifika
Mr. Taholo Kami, Senior Consultant e-Pacifika
Dr. Robert Guild, Pacific Islands Forum Secretariat
Ms. Miwako Takase, First Secretary, Embassy of Japan
Ms. Katherine Peart, Regional Coordinator e-Pacifika, UNDP/UNOPS.
Mr. Edo Stork, ICT Specialist, UNDP
Mr. Jeff Liew, Regional Coordinator, Sustainable Livelihoods Programme, UNDP/UNOPS

Criteria	**Point**	**Score**
Cost-Sharing	Yes or No. If no, the proposal is rejected. If yes, if the funding is between 40-65% thirty points (30), 66%-95% fifty points (50).	
Duration	If more than six months, rejected.	
Sustainability	Maximum 50 points	
Impact	Maximum 50 points	
Partnership	Maximum 40 points	
Capacity Building	Maximum 25 points	
Accurate and reasonable budget	Maximum 50 points	
Proposal completeness (risks assessed, practical, implement able, workplan included, human resources identified)	Maximum 40 points	
Total Points	**Maximum 305,** **Minimum required 220**	