ICTs for socio-economic development of
Pacific Island States

International Telecommunication Union
Telecommunication Development Bureau

Project Title	ICTs for socio-economic development of Pacific Island States (PIS)	
Number	TBD	
Project Short Title	ICT4PIS	
Estimated Duration	TBD	
Estimated Start Date	TBD (2006)	
Estimated End Date	TBD (2009)	
Government Coop. Agency	Ministries of Communications of Pacific Island States	
Donor Coordinating Agency	TBD	
Implementing Agency	International Telecommunication Union	
Beneficiary Countries	Pacific Island Member States	
ITU Project Manager	**TBD**	

Summary of contributions

TOTAL: US$ 7'563'600

A) **ITU contribution:**

B) **Partners' contribution:**

C) **Contribution from beneficiary countries:**

In-cash: US$

In-kind:
C.1) Administrative and technical
C.2) Custom clearance
C.3) Communication facilities
C.4) Infrastructure

Brief Description: This framework project seeks to build local capacity, enhance telecommunications infrastructure and deliver societal services to enhance education, health, agriculture (including fishery), access to government services and provide facilities for disaster mitigation and relief. It aims to use telecommunications and ICTs to foster socio-economic development by ensuring that the necessary policies, legislation and human capacity requirements are met and that solutions provided advance the achievement of national, sub-regional and international development targets. ITU will provide assistance in developing a five deliverables approach:

1) Enhancement and development of low cost, reliable infrastructure and migration to new technologies and services including training of selected end-users and back-up in case of communications failure.;

2) Establishment of a wide range of community-owned and sustainable multipurpose community telecentres (MCTs), as the main vehicle for the delivery of identified societal ICT services;

3) Design of a policy framework including capacity building, cybersecurity, ICTs and regulatory matters;

4) Improvement of basic ICT literacy and human capacity development in ICTs;

5) Development of regional disaster emergency communications package to be transportable and easily deployable to any country concerned in the Pacific Islands including training of selected end-users.

1 BACKGROUND

The Pacific Island countries face a unique set of geographic, demographic and socio-economic conditions related to the development and applications of Information and Communications Technologies (ICTs). At the WTDC-06 Regional Preparatory Meeting in Viet Nam (2005), ITU Member States expressed their vision for security, sustainable development, disaster warning and mitigation, economic growth, good governance and ending the 'tyranny of distance'. The member states requested ITU to strengthen its support to the region and coordinate and work closely with the Forum Secretariat and PITA in particular to ensure that the leaders' objectives are met and that the activities of all agencies are coordinated to maximize their return in the context of the Pacific Plan including a digital strategy.

The needs expressed are in line with the current regional strategy of the Pacific ACP-European Community, where emphasis is on eradicating poverty, integrating developing countries into the global economy through promoting regional cooperation and integration, encouraging private sector development, developing human resources through education and developing the fisheries sector to ensure conservation and sustainable management.

2 CONTENT FOCUS

Based on an appropriate legislative environment and telecommunications infrastructure, encourage the development of shared access points to citizens with access to capacity building mechanism and tools, services for emergency and disaster relief, access to sufficient back-up satellite capacity and e-applications and services mostly demanded. This would foster human resources development and ICT capacity building, regional economic integration and trade as well as to enhance transparency and accountability in public administrations.

3 PROBLEM ANALYSIS

Countries suffer under the 'tyranny of distance', instances of political and socio-economic instability, risks of natural disasters, underdeveloped export potential, reluctance of private sector investment due to rather low return on investment, insufficient capital for addressing the broad scope of needs as well as limited government resources and experience. The main barriers directly concerned with the implementation and use of ICTs are limited awareness and different levels of e-readiness – particularly due to the gap between urban and remote/rural areas - throughout the region, constraints of human resources capacity to develop, construct, operate and maintain ICTs, limited teledensity and limited bandwidth of internet, limited access to ICTs and high costs of services, limited use of practical ICT applications/services, limited emergency and disaster relief services, limited cybersecurity policies and tools as well as limited policy and regulatory frameworks.

4 PROJECT DESCRIPTION

This framework project seeks to build local capacity, enhance telecommunications infrastructure and deliver societal services to enhance education, health, agriculture (including fishery), access to government services and provide facilities for disaster mitigation and relief. It aims to use telecommunications and ICTs to foster socio-economic development by ensuring that the necessary policies, legislation and human capacity requirements are met and that affordable solutions provided will advance the achievement of national, sub-regional and international development targets.

4.1 Telecommunications infrastructure

Tailored national strategies on infrastructure development, migration and transition to NICTs could foster economic growth and reduce poverty. Maintaining the development of infrastructure requires appropriate power supply, low-cost networks and technologies, equipment and expertise as well as assistance from donors, suppliers and support services. In order to enable overcoming commercial,

financial and technological constraints of satellite operations and to minimize disruptions caused by satellite failure, pooled back up and contingency services as well as low cost and reliable satellite capacities and other telecommunications solutions are needed. According to the local circumstances, both terrestrial and satellite communications provide options for the Pacific Island countries. Cost-benefits analyses, discounting mechanisms and solutions for collective requirements should facilitate decision-making of the required communications. To ensure long term sustainability, the roll-out of telecommunication infrastructure must be based on service requirements so that the benefits of telecommunications can be transformed into improvements in social and economic conditions for the population.

4.2   Multipurpose community telecentres and relevant ICT applications

The assistance provided in planning, developing, funding, installing, maintaining, assessing facilities and managing affordable, accessible and self-sustaining multipurpose community telecentres (MCTs) could foster capacity building, regional economic integration, participative ownership and community access. Business models based on case studies addressing the needs of the target groups would be developed through accredited internet access locations. The common elements necessary to satisfy requirements for ICT applications must be identified so as to facilitate sustainability, replication and affordability. Ultimately, the benefits of ICTs for poverty alleviation, good governance, disaster relief, better access to education, health and improvements in agricultural activities can only be realized if the populations have affordable access to these ICT solutions and services. In this regard, MCTs will be the primary vehicle for delivering solutions to the population including basic ICT literacy, capacity building in ICTs and for deploying services and applications for emergency and disaster relief communications..

4.3   Policy, legislation and regulation

Policy skills, policy and regulatory frameworks are required for regional cooperation and integration addressing the various countries' needs. As such, regional activities for the Pacific Islands require not only technical assistance on drafting the national ICT policies, but also advice on best practices in regulatory reform, training of officials and better cooperation between the entities concerned. The common elements of the policy, legislation and regulatory frameworks of these countries should be identified to facilitate sub-regional integration and facilitate conditions that would foster economies of scale and ease of replication of successful projects and initiatives.

4.4   Capacity building

ICT awareness can be increased through customized campaigns on a basis of gender equity, use of local languages and dialects and create interest in using ICTs through community ownership. The low level of ICT literacy skills in maintaining equipment, networks and services could be tackled by including knowledge and use of ICTs in schools curricula, informal and institutional training. To retain skilled ICT professionals requires a facilitating environment for both professional expatriates and local experts where local expert will have the main responsibility to run and operate the infrastructure and platforms delivered through this project.

4.5   Emergency and disaster relief communications

The development of ICT infrastructure connecting remote islands is critical in disaster preparedness by implementing and improving reliable and flexible early-warning and mitigation systems as well as mechanisms for timely response and relief via voice, data and internet protocol services. Solid partnerships could lead to developing a regional disaster emergency communications package that is transportable and easily deployable to any country in the Pacific region. Contingency capacities and back up services are required. For maintenance purposes and timely responses, the relevant stakeholders and end-users need training programmes for capacity building.

5   INPUTS

5.1   International Telecommunication Union

The ITU shall exercise all reasonable skill, care and diligence in the discharge of its obligations undertaken in the framework of the present project document. The ITU shall in all professional matters act as a faithful adviser to the Signatories and shall, in particular:

5.1.1 Provide, subject to availability of the necessary funds as indicated in the project budget - Annex 1 to this document:
  (a) human resources for overall project supervision and coordination, as well as for guidance on national capacity building methods, IT strategies and policies;
  (b) neutral and objective advice on developing, implementing, maintaining telecommunications infrastructure and practical e-applications /services;
  (c) neutral and objective advice on specifying, evaluating, purchasing, installing and maintaining emergency telecommunications package in close collaboration with PIFS, PITA and the hosting countries including advice on logistics;
  (d) neutral and objective advice on developing, installing, maintaining MCTs;
  (e) any other services or applications described in the present document in connection with the specific needs and priorities of the countries.

5.1.2 Procure equipment, supplies and services in the framework of this project in accordance with its relevant rules and procedures.

5.1.3 Complete the services in accordance with the agreed project implementation schedule (Annex 2).

5.2   Partners

TBD

6   ACTIVITIES

6.1   Assessment and study

Assessing and studying the needs and user requirements, defining business models for sustainability and providing basic ICT training for the user community in order to define scope and technical requirements necessary for the following phases.

6.2   Service identification

Based on the previous analysis, appropriate communities and locations will be identified. Other activities in this phase include definition of the scope (estimated number of users) of the project. Elements common to the various services and countries will be identified and taken into account so as to facilitate replication within the same country and in other countries.

6.3   Technology design

Based on the results of the previous phases, the technology strategy, design objectives and identification of technology components to meet the objectives will be designed. In this phase, appropriate solutions shall be identified and finalized regarding the deliverables such as enhancement and development of infrastructure, implementation of multipurpose community telecentres etc… as well as some common and country specific applications.

6.4   Implementation

This phase includes the purchase and transport of equipments, the preparation of the sites, enhancement of existing ICT infrastructure, building the appropriate infrastructure, installing MCTs

and installing, configuring and customizing of the common and country specific applications/services, back-up satellite capacity needed and users' training for the implemented services. Also, training and workshops on policies legislation and regulation; human capacity building and emergency and disaster relief communications shall be carried out in this phase.

6.5   Testing and service roll out

The last phase includes consumer acceptance, quality assurance and service requirement conformance testing. Any further adjustments related to the contents and interface design will also be done in this last phase before the service becomes operational.

7   OUTPUTS AND DELIVERABLES

The expected outputs of the five deliverables include:
• **Policy framework**: A strategic approach covering capacity building, ICTs, legislation and regulatory matters;
• **Capacity building**: Assistance to isolated and scattered locations in policy, regulation, operations and maintenance of networks and services;
• **Telecommunications infrastructure and ICT applications**: Low cost, reliable and internet-based infrastructure and ICT applications including training of selected end-users and back-up in case of satellite failure;
• **Early warning, mitigation and disaster relief systems**: Regional disaster emergency communications package to be transportable and easily deployable to any country concerned in the Pacific Islands including training of selected end-users;
• **Rural communications**: Multipurpose community telecentres, which are used for capacity building and the delivery of basic services to the population based on enhancements in the core telecommunication infrastructure including back-up satellite and terrestrial capacities.

8   CAPACITY REQUIREMENTS

The implementation of this project requires the appropriate policy framework and a facilitating environment for using the required technology and providing the support for such services. It also needs human and financial resources, appropriate technology (hardware and software) and efficient management practices. To meet the objectives, there must be ongoing monitoring, evaluation to meet the changing user needs and service requirements.

9   MANAGEMENT AND IMPLEMENTATION MODE

In this project the ITU is the executing organization and the host countries are responsible for an enabling environment, ongoing operations and recurring costs (beyond the funding period) and for providing the services identified. The project will use existing ITU procedures for procurement, disbursements and financial management.

10   BENEFICIARY COUNTRIES

Beneficiary countries are Cook Islands, Fiji, Kiribati, Marshall Islands, Federated States of Micronesia, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

11 Annex 1 - Budget

Expenses		US $ TOTAL BUDGET	US$ BUDGET 2006	US $ BUDGET 2007	US $ BUDGET 2008	US $ BUDGET 2009
HUMAN RESOURCES						
International Personnel						
Project coordination		**375'000**	125'000	125'000	125'000	
International Consultant						
Assess and study needs and requirements		**188'000**	188'000			
Identify priorities and services		**105'000**	84'000	21'000		
Installation, monitoring and testing of Infrastructure (satellite and terrestrial)		**126'000**	42'000	42'000	42'000	
National ICT policy framework design and training		**252'000**	84'000	84'000	84'000	
Total International Personnel		**1'046'000**	523'000	272'000	251'000	
Total National Professional Personnel						
Coordinate the sub-project in country						
Total National Professional Personnel						
Evaluation						
Interim Evaluation Mission - Tickets		**30'000**			15'000	15'000
Final Evaluation Mission - Ticket		**30'000**			15'000	15'000
Total Evaluation Costs		**60'000**			**30'000**	**30'000**
TOTAL HUMAN RESOURCES		**1'106'000**	**523'000**	**272'000**	**281'000**	**30'000**
TRAVEL						
Field mission						
Site survey		**106'750**	53'375	53'375		
Test and accept services and applications provided		**106'750**			53'375	53'375
Train users		**213'500**			106'750	106'750
Total Field Mission Costs		**427'000**	**53'375**	**53'375**	**160'125**	**160'125**
Training/Fellowships						
Travel (Workshop on national ICT policies, legislation, regulation and human capacity building)		**450'000**		150'000	150'000	150'000
Total Training/Fellowships		**450'000**		**150'000**	**150'000**	**150'000**
TOTAL TRAVEL		**877'000**	**53'375**	**203'375**	**310'125**	**310'125**
EQUIPMENT, SOFTWARE and SUPPLIES						
Equipments, infrastructure and software						
Enhance and install backbone infrastructure (satellite and terrestrial)		**1'020'000**		340'000	340'000	340'000
MCT, equipments, infrastructure and software		**2'520'000**		840'000	840'000	840'000
Emergency, equipment and software		**179'200**		89'600	89'600	
Common capacity building network, applications and Emergency platform		**529'000**	264'500	264'500		
Transport et Assurance		**225'000**	37'500	75'000	75'000	37'500
TOTAL EQUIPMENT, SOFTWARE and SUPPLIES		**4'473'200**	**302'000**	**1'609'100**	**1'344'600**	**1'217'500**
MISCELLANEOUS COSTS						
Sundries						
Communication fees		**42'000**	6'000	12'000	12'000	12'000
Seminar Support		**225'000**		75'000	75'000	75'000
TOTAL MISCELLANEOUS		**267'000**	**6'000**	**87'000**	**87'000**	**87'000**
SUB-TOTAL PROJECT		**6'723'200**	**884'375**	**2'171'475**	**2'022'725**	**1'644'625**
OTHER ADMIN & SUPPORT COSTS						
ITU Admin Support Costs	7.5%	**504'240**	66'328	162'861	151'704	123'347
Contingency Reserve	5.0%	**336'160**	44'219	108'574	101'136	82'231
BUDGET REMAINING TO BE ALLOCATED		**-7'563'600**				
TOTAL BUDGET		**7'563'600**	**994'922**	**2'442'909**	**2'275'566**	**1'850'203**

12. Annex 2 - Project Implementation Schedule

Tasks	Year 1 Month 1-12	Year 2 Month 1-12	Year 3 Month 1-12	Year 4 Month 1-12
Recruit the project coordinator	Month 1			
Coordinate the project implementation	Months 2-12	Months 1-12	Months 1-12	Months 1-12
Sign the project document for PI countries	Month 2			
Assess and study needs and requirements	Months 3-8			
Identify priorities and services	Months 8-12			
Recruit international consultant for national ICT strategies and capacity building	Months 4-6			
Work shops on national ICT policies, strategies, emergency and capacity building	Months 7-12	Months 1-12		
Site survey	Months 9-12	Months 1-2		
Elaborate technical specifications for backbone infrastructure, MCTs and ICT applications		Months 1-5		
Tender process		Months 4-7		
Preparation of sites for backbone, MCTs		Months 6-12	Months 1-12	
Equipment and software		Months 8-12	Months 1-12	
Transport and insurance		Months 9-12	Months 1-12	
Enhance and install backbone infrastructure		Months 9-12	Months 1-12	Months 1-6
Install equipment and software for Emergency		Months 9-12	Months 1-12	Months 1-8
Install MCTs		Months 9-12	Months 1-12	Months 1-8
Common capacity building network, applications and Emergency platform		Months 9-12	Months 1-12	Months 1-4
Test and accept services provided			Months 1-12	Months 1-10
Train users				Months 1-12