

ITU Asia Pacific Regional Development Forum 2017

ICTs for Sustainable Development in Asia-Pacific

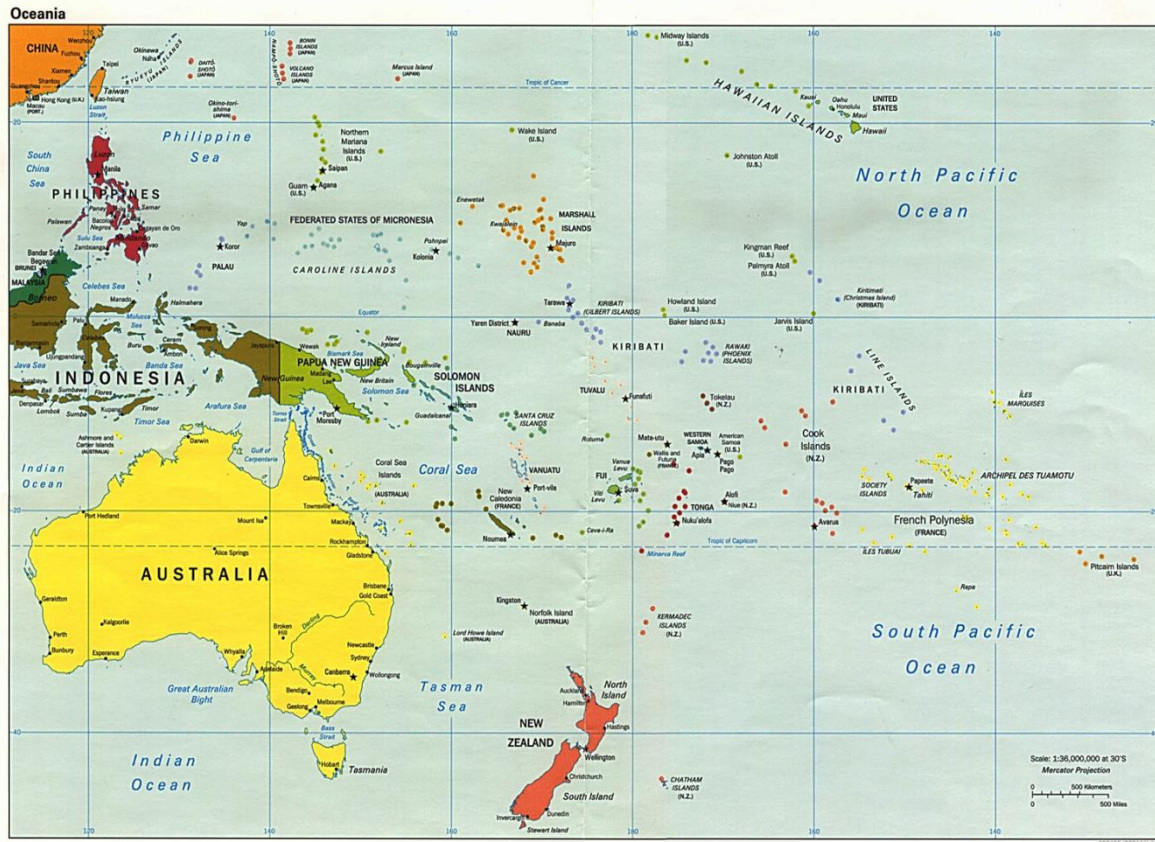
MEETING SDG IN THE PACIFIC - ICT



PACIFIC ISLANDS TELECOMMUNICATIONS ASSOCIATION

1. Non Profit Organization
2. 22 Pacific Islands Economies
3. 189 members – Including Govt & Regulators
4. Interests of PICs in Telecommunications:

- improve, promote, enhance, facilitate and provide telecommunications services within full member and associate member countries



PACIFIC ISLAND COUNTRIES

1. 30,000 Islands scattered over 54 million square kms of Ocean
2. Population Range -1,600 (Tokelau/Niue) to 8 million (PNG)
3. Challenges and Limitations

- Connectivity and bandwidth
- Infrastructure and Technologies
- Cost & Access to Funds
- HR and Special Skills
- Transport and Accessibility
- Terrain and Environment
- Affordability - Pricing
- Local Content & Applications
- Leadership/Ownership/Dependability





WorldRiskIndex Report 2014

The 15 countries that are most at risk worldwide

Country	Risk (%)	Rank
Vanuatu	36.50	1
Philippines	28.25	2
Tonga	28.23	3
Guatemala	20.68	4
Bangladesh	19.37	5
Solomon Islands	19.18	6
Costa Rica	17.33	7
El Salvador	17.12	8
Cambodia	17.12	9
Papua New Guinea	16.74	10
Timor-Leste	16.41	11
Brunei Darussalam	16.23	12
Nicaragua	14.87	13
Mauritius	14.78	14
Guinea-Bissau	13.75	15

The 15 most exposed countries worldwide

Country	Exp. (%)	Rank
Vanuatu	63.66	1
Tonga	55.27	2
Philippines	52.46	3
Japan	45.91	4
Costa Rica	42.61	5
Brunei Darussalam	41.10	6
Mauritius	37.35	7
Guatemala	36.30	8
El Salvador	32.60	9
Bangladesh	31.70	10
Chile	30.95	11
Netherlands	30.57	12
Solomon Islands	29.98	13
Fiji	27.71	14
Cambodia	27.65	15






INDUSTRY TRENDS IN PACIFIC ISLANDS

Bandwidth – is key



10G used to be with Carriers – but now moving to buyers (Enterprises)

CABLES ARE CRITICAL INFRASTRUCTURE
90% COMMS ARE CARRIED ON SUBMARINE CABLES

TO INCREASE CONNECTIVITY
for users' access to content

TO MEET GROWING TRAFFIC DEMANDS
Internet Annual Growth >60% 2010-2016 (*)

TO INCREASE CABLE ROUTE DIVERSITY
to ensure always-on connectivity

TO BUILD "OWN" INFRASTRUCTURE
to be independent from service providers

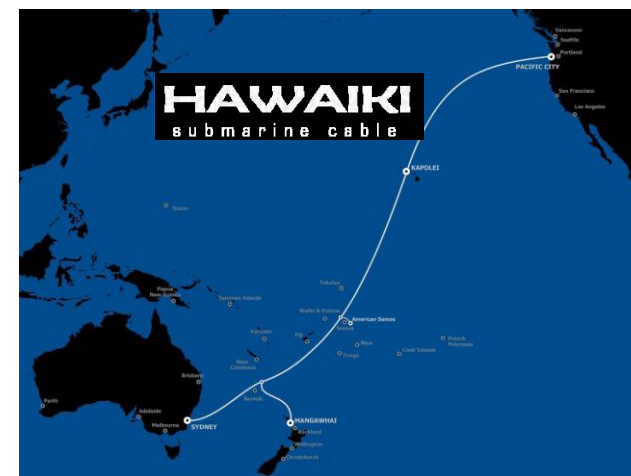
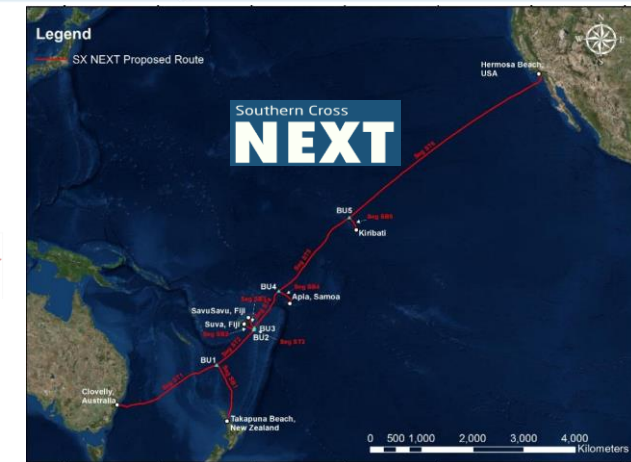
*Source: TeleGeography

Country Wide Report : March 2016

1 : Fixed telephone subscription per 100 population	17.87
2 : Mobile - cellular telephone subscription per 100 population	112.67
3 : Fixed (Wired) - broadband subscriptions per 100 population	1.53
4 : Wireless - broadband subscriptions per 100 population	6.07
5 : Active mobile - broadband subscription per 100 population	140.35
6 : International internet bandwidth, in Mbit/s per 100	1.33



MEETING SDG IN THE PACIFIC - ICT



Inmarsat O3b speedCast
Intelsat & OneWeb Kacific ABS
SES



- 9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support - to African countries, Least Developed Countries (*which includes Kiribati, Solomon Islands, Tuvalu & Vanuatu*), landlocked developing countries and small island developing States
- 9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities
- 9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

USER EXPERIENCE



Internet Users by Country (2016)

#	Country	Internet Users (2016)	Penetration (% of Pop)	Population (2016)	Non-Users (internetless)	Users 1 Year Change (%)	Internet Users 1 Year Change	Population 1 Y Change
132	Papua New Guinea	906,695	11.7 %	7,776,115	6,869,420	8.6 %	71,835	2.06 %
144	Fiji	419,958	46.8 %	897,537	477,579	4 %	16,237	0.6 %
165	New Caledonia	186,502	70 %	266,431	79,929	1.3 %	2,319	1.26 %
166	French Polynesia	182,442	63.9 %	285,735	103,293	2.6 %	4,661	1.05 %
176	Vanuatu	82,764	30.6 %	270,470	187,706	16 %	11,386	2.2 %
183	Solomon Islands	58,423	9.8 %	594,934	536,511	4.6 %	2,573	1.94 %
186	Samoa	56,373	29 %	194,523	138,150	9.7 %	5,004	0.67 %
187	Seychelles	56,168	57.9 %	97,026	40,858	2.6 %	1,400	0.58 %
188	Tonga	49,822	46.6 %	106,915	57,093	5.3 %	2,501	0.7 %
198	Micronesia	32,749	31.2 %	104,966	72,217	2.1 %	658	0.48 %
199	Kiribati	14,724	12.9 %	114,405	99,681	3.3 %	472	1.76 %
200	Timor-Leste	14,030	1.2 %	1,211,245	1,197,215	3.1 %	416	2.24 %
201	Marshall Islands	10,709	20.2 %	53,069	42,360	5.6 %	565	0.14 %

FIXED AND MOBILE - PACIFIC

Pacific Islands	Number of mobile operators	Market share of leading mobile operator	Major mobile operators	4G mobile available	Fixed operator
Papua New Guinea	3	70%	Bmobile-Vodafone, Digicel, Telikom PNG	Yes	Telikom PNG
Fiji	2/1	78%	Vodafone, Digicel, INKK (MVNO)	Yes	TFL , FINTEL (International)
Solomon Islands	2	75%	Our Telekom, bmobile	No	Our Telekom
Vanuatu	2	84%	Digicel, TVL	Yes	TVL
Samoa	3	73%	Digicel, Bluesky, NeTVO Limited	No	BlueSky
Tonga	2	72%	Digicel, U-CALL	Yes	TCC
Federated States of Micronesia	1	100%	FSM Telecom	No	FSM Telecom
Kiribati	1	100%	TSKL	Yes	TSKL
Marshall Islands	1	100%	NTA	No	
Palau	2	60%	PNCC, Palau Mobile	?	PNCC
Cook Islands	1	100%	Bluesky	No	Bluesky
Nauru	1	100%	Digicel	No	
Tuvalu	1	100%	Tuvalu Telecom	No	Tuvalu Telecom
Niue	1	100%	Telecom Niue	?	Telecom Niue

Tuvalu, Tokelau, Niue & Palau – in transition

Technology

- 17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and **enhance the use of enabling technology, in particular information and communications technology**

ECONOMIC & SOCIAL IMPACT OF ICT IN THE PACIFIC

Changes to date

- Mobile coverage – less than 50% in 2005 to 93% in 2014 (Fiji, Samoa, Solomon, Vanuatu)
- Cost of mobile calls declined by 1/3 between 2005 and 2014
- Percentage of mobile phones in household – 49% in 2007 to 93% in 2014
- International internet bandwidth – over 1500% between 2007 and 2014
- Restructure/Privatisation – state owned enterprises (ROE from -5.6% in 2008 to 0.6% in 2014 – *ADB/PSDI report*)
- Govt services (on-line) via ICT – (business registries - Samoa, Tonga, Solomon and Vanuatu)

What Next

- Competition/Price regulation - access to ICT remains competitive, fairly priced and accessible to all.
- Basic Digital Literacy (e-banking)
- Support for applications – e-health, education, agriculture, trade, tourism
- Investment in ICT skills (PPP) - employment opportunities with the availability of affordable broadband internet (*BPOs*)



COLLABORATION



PAST & PRESENT

1. Telecom Strategy for the Pacific – *Next 5 years*
2. Emergency Telecom Eqpt – FSM, Vanuatu, Fiji
3. Regional Radio-communications Workshop
4. Sub-sea cable – technical & commercial
5. Protecting 'C' Band – WRC 15

GOING FORWARD

- Digital Financial Services & Inclusion
- Digital wallets
- Regional IXP
- Regional Cert
- HR Capacity & Leadership



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