



PACIFIC DIGITAL GENDER SCORECARDS REGIONAL SYNTHESIS REPORT



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Introduction

The digital gender gap is stark in developing countries according to the International Telecommunication Union (ITU)¹, and closing the gender gap in mobile use has stalled in recent years according to the GSM Association (GSMA).² Research by GSMA found that closing the gender gap in mobile internet use across low and middle income countries over five years could deliver an additional USD 700 billion in GDP growth, while closing the gender gap in mobile ownership and use over the same period could deliver \$140 billion in additional revenue to the mobile industry.³ Globally, men are 21% more likely to be online than women but this rises to 52% in the world's least developed countries.⁴ This has serious implications for women's ability to benefit from developments in digital technology, which is especially problematic in a post-COVID environment that is increasingly reliant on online platforms for information sharing, services, and business opportunities.

Access to information and communications technologies (ICTs) and meaningful internet connectivity⁵ are central to advancing gender equality, women's empowerment, and sustainable, inclusive economies. The Sustainable Development Goals (SDGs), which set the global development agenda until 2030, have recognised the significance of empowering women through technology, fast-tracking the delivery of universal affordable internet access and ensuring quality education including digital skills education. It is urgent for governments to deliver on these promises by securing policy targets and committing investment to close the gender digital divide.

Women and girls' equal access to the internet and digital technologies is critical to deliver universal quality education, ensure access to healthcare services, achieve financial inclusion, create more efficient and accountable public service delivery, and much more.

In adopting the SDGs, all countries have pledged to prioritise universal internet access, and to ensure digital technologies and new innovations empower women and girls around the world. However, worldwide, a formidable gender gap in internet access, digital skills and online rights prevents women and girls from accessing equal rights and opportunities in the digital age.

¹ ITU (2021) Measuring Digital Development: Facts and Figures

<https://www.itu.int/itu-d/reports/statistics/2021/11/15/the-gender-digital-divide/>

² GSMA (2022) The Mobile Gender Gap Report

<https://www.gsma.com/mobilefordevelopment/blog/the-mobile-gender-gap-report-2022/>.

³ GSMA (2022) The Mobile Gender Gap Report

<https://www.gsma.com/r/wp-content/uploads/2022/06/The-Mobile-Gender-Gap-Report-2022.pdf>

⁴ World Economic Forum (2022) <https://www.weforum.org/agenda/2022/03/how-to-close-digital-gender-divide/>

⁵ Alliance for Affordable Internet (2022) <https://a4ai.org/meaningful-connectivity/>

Since 2016, the Web Foundation's Women's Rights Online (WRO) program and local partner organisations have developed the [Digital Gender Gap Audit Scorecards](#) to help countries assess what research, data, policies and investments are needed to close the gender digital divide, and ensure women and girls are at the forefront of sustainable development and digital equality. These scorecards have been used to ensure that there is sustained commitment and implementation of gender-responsive policies in the ICT sector for gender equality and digital equality.

This regional report summarises the findings and recommendations from the Digital Gender Gap Audit Scorecard country reports assessing women's rights online for a selected sample of countries from the Pacific region. These are Papua New Guinea, Tonga, and Samoa.

The Digital Gender Divide Across the Pacific

As noted in the UN University and EQUALS Global Partnership 2019 report “Taking Stock: Data and Evidence on Gender Equality in Digital Access, Skills and Leadership” there is limited sex-disaggregated data globally on most internationally comparable ICT indicators, especially in developing countries.⁶ However, developments in digital technologies present new opportunities for gender equality and inclusion.⁷ For the Pacific region, the report identifies only Tonga that collects sex-disaggregated data on basic digital access indicators. The Pacific has the lowest rate of mobile internet penetration in the world at just 18% of the population, but many Pacific Island countries are anticipating significant economic benefits due to new fibre cables increasing the connectivity of their dispersed populations. In 2020, the Forum Economic Ministers statement on COVID-19 noted that Pacific leaders were committed to ‘supporting economic recovery opportunities by enhancing connectivity and strengthening the digital economy through investments in digital literacy, digital trade and innovation in the private sector’.⁸

Based on similar global experiences and evidence, women in the Pacific are less likely to have access to the internet and the skills to effectively use it. It is not possible to develop policy and programmatic responses without the benefit of reliable data on the digital gender divide in the Pacific. Data on gender digital divide in the Pacific will assist policy makers and development actors to better understand the current use of the internet by women and the specific challenges they face in taking advantage of digital technologies, particularly as it relates to operating businesses, increasing women’s economic opportunities and financial security. Research from other regions shows significant potential for women’s entrepreneurship to be supported through expanding access and use of digital technology including significant potential for women in the informal sector. This regional synthesis report will look at each of the five *Digital Gender Gap Audit Scorecard* themes individually. Within each theme, the scores and data for Samoa, Papua New Guinea, and Tonga are synthesised, as assessed by expert in-country partners and documented in the country reports and datasets.

⁶ UN University & EQUALS Global Partnership (2019)

<https://i.unu.edu/media/cs.unu.edu/attachment/4040/EQUALS-Research-Report-2019.pdf>

⁷ World Wide Web Foundation (2020) The gender gap in internet access: using a women-centered method.

⁸ Pacific Islands Forum (2020).

<https://www.forumsec.org/wp-content/uploads/2020/08/2020-Forum-Economic-Ministers-Meeting-Outcomes.pdf>

Key recommendations put forward by country partners and expert research teams are included at the end of each thematic section. **The overall score for Samoa was 71% and Tonga 71.6%, while Papua New Guinea scored 47%.**

Internet Access and Women's Empowerment

Samoa thematic score – 6.5

Samoa scored 6.5 on Internet Access and Women's Empowerment. There is ICT data collected and available from various national bodies, however, only a small portion of this data includes sex-disaggregated information.^{9 10 11 12} According to primary survey data collected for the purpose of this study, approximately 50-74% of 400 females interviewed reported using the internet to look for jobs, seek information, and voice their opinion on the internet.¹³ There are national policies that mention the use of technology to reverse gender inequality, however there is no official data available on specific programs implemented, or their impact on women and girls.¹⁴

Papua New Guinea thematic score – 4.4

Papua New Guinea scored 4.4 on Internet Access and Women's Empowerment. In Papua New Guinea, women are 10% less likely than men to own a mobile phone, and 23% less likely to use mobile internet.¹⁵ 62% of women participate in the labour force; and 38% of women versus 66% of men in waged employment.¹⁶ As a result, income disparity and internet affordability are a major challenge to women's digital inclusion.

⁹ Samoa Demographic and Health Survey-Multiple Indicator Cluster Survey (2019-2020) by the Samoa Bureau of Statistics.

¹⁰ National Policy for Gender Equality from 2016 to 2020, MWCSO, Australia Aid.

¹¹ Gender and Education - Facts and Implications. Samoa Gender Dynamics Monograph (2020).

¹² Samoa Gender Dynamics Monograph (2016 Population and Housing Census - SBS).

¹³ Summary of Raw data collected for this project. Sample collection used the geographical sub regions from the Samoa Bureau of Statistics (SBS).

¹⁴ Samoa Strategy. Samoa E-Commerce Strategy and RoadMap (MCIL - Draft version 2.6 2 May 2022); Pathway for Development of Samoa FY2020-21 -FY2025-26 ; National Policy on Gender Equality and Rights of Women and Girls 2021-2031 (MWCSO); Right to Information Policy for Samoa (MCIT - Draft October 2021); The Pathway for the Development of Samoa (MOF); National Policy on Gender Equality and Rights of Women and Girls 2021-2031 (MWCSO).

¹⁵ GSMA. Digital Transformation: The Role of Mobile Technology in Papua New Guinea (2019).

<https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2019/03/Digital-Transformation-The-Role-of-Mobile-Technology-in-Papua-New-Guinea.pdf>

¹⁶ Asia Development Bank. Country Partnership Strategy (2016-2022).

<https://www.adb.org/sites/default/files/linked-documents/cps-png-2016-2020-ga.pdf>

Remote and rural areas suffer from poor connectivity, while fixed and mobile internet subscriptions cover just 11% of the population.¹⁷ There is currently no official ICT sex-disaggregated data collected to inform and allow the development of gender responsive policies in the digital sector.

Tonga thematic score – 7

Tonga scored 7 on Internet Access and Women’s Empowerment. Amongst women aged 15-49 years of age surveyed in the Multiple Indicator Cluster Survey (2019), 79.2% of women reported having ever used the internet, while 78.2% reported having used the internet during the last 3 months.¹⁸ In comparison, amongst men of the same age range, 87.8% reported ever having used the internet, with 86.6% surveyed having used the internet in the last 3 months.¹⁹ The country’s gender gap in this respect is around 8%.²⁰

¹⁷ GSMA. Digital Transformation: The Role of Mobile Technology in Papua New Guinea (2019). <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2019/03/Digital-Transformation-The-Role-of-Mobile-Technology-in-Papua-New-Guinea.pdf>

¹⁸ Multiple Indicator Cluster Survey (2019). <https://tongastats.gov.to/download/171/mics-survey/4679/2019-mics-survey-findings-report.pdf>

¹⁹ Multiple Indicator Cluster Survey (2019). <https://tongastats.gov.to/download/171/mics-survey/4679/2019-mics-survey-findings-report.pdf>

²⁰ Women’s Rights Online Report Card (2022). Tonga.

Findings for *Internet Access and Women's Empowerment* Sub-Themes²¹

Indicator	Samoa	PNG	Tonga
<i>National collection and reporting of sex-disaggregated ICT data</i>	There is ICT data collected and available from various national bodies, however a small portion of this data includes sex-disaggregated information.	There are no official ICT sex-disaggregated data collected to inform and allow for targeted gender-responsive interventions. More men are literate, educated and employed therefore they are more likely to afford and have access to the internet. The National ICT Strategies and Broadband Plans do not have gender targets.	There is sex-disaggregated ICT data reported in The Tonga Multiple Indicator Cluster Survey (MICS) ²² which is based on household survey research carried out in 2019 by Tonga Statistics Department in collaboration with the Ministry of Health, Ministry of Internal Affairs -Women's Affairs and Gender Equality Division and other government ministries.
<i>Existence in national ICT strategies or broadband plans of clear time-bound targets to overcome gender and poverty divides in internet use, and provision of budget for implementation</i>	There are national policies that mention the use of technology to combat gender inequality, however there is no official data available on specific programs implemented or its success for women and girls.	The current Digital Government Act (2022) incorporates Gender, noting the GESI (Gender Equity and Social Inclusion) Policy. There is also a National Policy for Women & Gender Equality that sets a framework for promotion of gender equity and social inclusive practices	The Communication and Information Department of Tonga does not have any specific targets stated on their Corporate Plans 2020/2021 – 2022/2023. However, the Tonga Strategic Framework II 2015 – 2025 (TSDF II) stated a target for the “Number of internet users per 100 people”, which was 60 for 2018 and 100 for 2025. ²³

²¹ Dataset for Women's Rights Online Report Card (2022) - Samoa ([Samoa Information Technology Association \(SITA\)](#)); Papua New Guinea ([Digital ICT Cluster PNG](#)), Tonga ([TWICT](#))

²² Tonga Statistics Department (TSD) (2019) [Multiple Indicator Cluster Survey 2019](#)

²³ Ministry of Internal Affairs, ([Ministry of Internal Affairs Corporate Plan 2020/2021 - 2022/2023](#)), Tonga

		<p>across the National Public Service. It is consistent with the guiding principles articulated in the National Policy for Women and Gender Equality 2011-2015 and the various international conventions which have been ratified by PNG. It has also been informed by Vision 2050, the Development Strategic Plan 2010-2030 and Medium-Term Development Plans, all of which strive to rank PNG in the top 50 countries in the United Nations Human Development Index by 2050, creating opportunities for personal and national advancement through economic growth, smart innovative ideas, quality service and ensuring a fair and equitable distribution of benefits in a safe and secure environment for all citizens.</p>	
<p><i>Women's internet access</i></p>	<p>Data collected from the Samoa DHS-MICS survey conducted in 2019-2020 shows that</p>	<p>Half of the country's population do not have mobile phones (around 4 million). Half</p>	<p>79.2% of women surveyed in the Multiple Indicator Cluster Survey 2019</p>

	<p>47%-56% of total women surveyed used the internet during the last 3 months or once a week during that time frame. This figure is smaller compared to more recent surveys carried out as part of this study, also due to different sampling frameworks and methodologies.</p>	<p>of the population also do not have internet access (around 6 million). More than half of the population are without electricity and do not have a bank account.</p> <p>Low levels of digital literacy limit women's access and use of the internet.</p>	<p>(MICS) reported having never used the internet. Within this figure, 78.2% of women aged 15-49 reported to have used the internet during the last 3 months, compared to 86.6% of men surveyed. The country's gender gap in this respect is around 8%.</p>
<p><i>Empowering use of the web</i></p>	<p>According to primary survey data collected by the Samoa Information Technology Association, approximately 50%-74% of women interviewed found the internet to be a valuable tool to look for jobs, seek information and voice their opinions online. 18.4% of women interviewed found the internet to be a "very valuable tool" for posting comments about any issues they care about. 31.4% of women interviewed found the internet to be "fairly valuable".</p>	<p>Remote, rural areas suffer from poor connectivity, while fixed and mobile internet subscriptions only cover 11% of the population. This hinders empowering access and use of the web for anyone, especially women who are less likely than men to have access.</p> <p>Of those who use the internet daily, the majority report using it primarily for social media, banking, entertainment, for their studies, and for work.</p>	<p>No data available.</p> <p>The Multiple Indicator Cluster Survey 2019 did not capture the reason for using the internet. However, further information may have been collected from the 2021 Census. The report has not yet been released at the time of this study.</p>

KEY ACTIONS AND RECOMMENDATIONS: Internet Access and Women Empowerment

Samoa: *Empower Women and Girls Through Digital Skills and ICT Education.* Government, through relevant Ministries, should create training programs specifically targeting women and girls with the aim to promote digital skills and to educate them on how they can use the internet to fully benefit from opportunities offered by digital technologies.

Papua New Guinea: *Improve Internet Access and Promote Women's Empowerment.* Provide internet access across the country, especially targeting rural areas and villages. Set up free Wi-Fi services in public areas, hospitals, and schools. Provide IT labs and internet-connected equipment in schools, from primary up to high school. Implement more programs such as Girls in ICT and Women in STEM to promote, encourage and empower more young girls to be interested in new technologies.

Tonga: *Provide Meaningful Internet Access and Empower Women to Use the Internet.* Invest in developing clear time-bound targets to overcome gender and poverty divides in internet use, and provide a budget for implementation to close the gender digital divide. These targets should be included in national ICT strategies or broadband plans.

Affordability

Samoa thematic score – 7

In Samoa, prices have been falling since market competition was introduced in 2007, and affordability is now at around 1.9%.²⁴ The ITU's Broadband Commission proposes that internet access would only be considered affordable in least developed countries (LDC) if 1GB of internet data (prepaid) costs around 2% of gross national monthly income, referred to as the "1 for 2" benchmark.²⁵ Samoa is now under this threshold. However, according to the March 2022 Quarter Employment Statistics Report, men received the largest share of total wages with 54.2% (or \$309.2 million), while women had 45.8% (or \$261.5 million).²⁶ The income gender gap exacerbates the proportional cost and affordability of the internet for women, and particularly for women-headed households.

Papua New Guinea thematic score – 4.2

Papua New Guinea is one of the least affordable countries in the Pacific, with the most expensive internet services.²⁷ The cost of a 1GB data bundle ranges from US\$3 Daily to US\$90 monthly. Even with significant improvements, such as, high-level fixed broadband and introduction of new Internet Service Providers, Papua New Guinea remains as the least affordable country in the region. Although the Government's Universal Access and Services program is in place, public Wi-Fi services are not readily available in public areas such as hospitals or schools; however, most businesses and organisations provide their own private Wi-Fi. The 2009-2010 Household Income and Expenditure Survey shows that for women in the formal sector, average monthly pay is less than half that of men.²⁸ Majority of women live in rural areas, and women are also much less likely to be in the formal sector than men – 66% of men have these roles, compared with just 38% of women - which limits women's income and the proportional burdens of the high cost to connect to the internet.²⁹

²⁴ Samoa Information Technology Association (SITA). (2022). Women's Right Online Report Card. Samoa.

²⁵ Alliance for Affordable Internet (2017) <https://a4ai.org/affordable-internet-is-1-for-2/>

²⁶ Samoa Bureau of Statistics (2022). Employment Statistics.

https://www.sbs.gov.ws/images/sbs-documents/Finance/Employment/2022/Employment_Report_March_2022.pdf

²⁷ UNESCAP (2018). [Broadband Connectivity in the Pacific Islands](https://www.unescap.org/sites/default/files/PACIFIC_PAPER_Final_Publication_1_1.pdf).

https://www.unescap.org/sites/default/files/PACIFIC_PAPER_Final_Publication_1_1.pdf

²⁸ Country Partnership Strategy: Papua New Guinea, 2016–2020.

<https://www.adb.org/sites/default/files/linked-documents/cps-png-2016-2020-ga.pdf>

²⁹ Ibid.

Tonga thematic score – 8

Tonga's Internet Exchange Point or TongaIX was successfully implemented in August 2018, and as a result, the Tonga Cable Limited (TCL) reduced the wholesale price by 50%, allowing internet retail service providers to provide cheaper internet access to the country.³⁰ The Multiple Indicator Cluster Survey Report of 2019 reported that 85.1% of households in Tonga have access to the internet at home.³¹ However, based on the average monthly wages captured in the Tonga Labour Force Survey (2018), women earn 29% less than men per month, which highlights the gender pay gap in the country and its possible impact on women's internet affordability.³² This makes the internet far less affordable to women as a proportion of monthly earnings. More data is needed on affordability based on the gender pay gap in the country to create policy and regulatory guidelines for ensuring women's affordable internet access.

³⁰ Tonga Cable Press Release (20 August 2020). <http://tongacable.to/press-release-20th-august/>
Tonga Communications Act (2015)
https://ago.gov.to/cms/images/LEGISLATION/PRINCIPAL/2015/2015-0026/CommunicationsAct2015_1.pdf

Tonga Communications Tariff Rules (2018)
<https://www.communications.gov.to/images/2020/RulesAndRegulations/CommunicationsTariffRules2018.pdf>

Tonga-Fiji Submarine Cable Project Report
<https://www.adb.org/sites/default/files/project-documents/44172/44172-022-pcr-en.pdf>

³¹ Tonga Multiple Indicator Cluster Survey (2019).
<https://tongastats.gov.to/download/171/mics-survey/4679/2019-mics-survey-findings-report.pdf>

³² Tonga Statistics Department (2018) <https://tongastats.gov.to/survey/labour-force-survey/>

Findings for *Affordability* Sub-Theme³³

Indicator	Samoa	PNG	Tonga
<i>Existence of specific policies to promote free or low-cost public internet access (such as budget allocations for internet access in public libraries, schools and community centres, or provisions for spectrum use by community Wi-Fi options)</i>	The Samoa government's Communication Sector Plan 2018-2022 focuses on Affordable and Appropriate ICT Accessible to All. The Samoa government also encouraged infrastructure sharing between internet service providers to reduce costs that may eventually pass on to end-users.	<p>DatacoPNG Ltd - Wholesaler - DataCo confirmed that part of their community obligations set forth by GoPNG, they provide free Wi-Fi and internet access to select schools, churches, and health care facilities.</p> <p>Micro ISP Emstret Holding Ltd. Provides free internet access and Wi-Fi connectivity to remote communities.</p> <p>NICTA UAS Policy and Implementation Programs: Research on UAS Priorities - Public & Hotspot Services across the country for citizens serving both sexes.</p> <p>PNGARNET - The Papua New Guinea Academic and Research Network - Organisation of Universities have come together to develop Connectivity for Institutions for Research and</p>	Tonga's Internet Exchange Point or TongaIX was successfully implemented in August 2018. Tonga Cable Limited (TCL) reduced the wholesale price by 50%, allowing internet retail service providers to provide cheaper internet access to the country. However, there are very few places set up to offer free internet Wi-Fi access.

³³ Dataset for Women's Rights Online Report Card (2022) - Samoa ([Samoa Information Technology Association \(SITA\)](#)); Papua New Guinea ([Digital ICT Cluster PNG](#)), Tonga ([TWICT](#))

		Education.	
<i>Internet affordability (price of 1 GB data / average monthly income)</i>	In Samoa, prices have been falling since competition was introduced in 2007, and 1GB costs approximately 1.9% of average monthly income.	A study of internet affordability in the Pacific Islands shows that PNG is listed as having the most expensive internet services. Purchasing of monthly data bundles for many requires more than 100% of average monthly income.	According to the ITU ICT Price Baskets (IPB) 2021, Tonga has the cheapest internet in the region providing at least 2GB of high-speed data (>= 256Kbit/s) over a 30-day period of time from the operator with the largest market share in the country cost USD \$8.87 and accounts to 2.05% of Gross National Income per capita (GNI pc) with USD \$10.75 PPP.

KEY ACTIONS AND RECOMMENDATIONS: Affordability

Samoa: *Adopt Meaningful Connectivity as the Target for Internet Use.* The government must adopt Meaningful Connectivity³⁴ in terms of speed, devices, data and frequency of use. The implementation of the Meaningful Connectivity target should be gender-responsive by collecting gender data and analysis to improve the revision of internet policies, regulations and strategies and ICT sector investments. Government should also continue to improve network infrastructure and review internet policies and regulations to promote free and low-cost public internet access for all.

Papua New Guinea: *Improve Internet Affordability.* Aim at subsidising internet access to achieve challenging but relevant targets for internet penetration, especially in rural areas. More work and effort need to be put into improving internet affordability to have more women and girls to be digitally included. Support initiatives set by GoPNG for DataCo and National ICT Authority of Papua New Guinea (NICTA) to provide free Wi-Fi and internet access to schools, churches, information centres and health-care facilities within the country.

Tonga: *Improve Internet Access and Affordability.* Subsidise rural internet access. Drive digital inclusion and affordable access for women. Invest in specific policies and programs to promote free or low-cost public internet access (such as, budget allocations for internet access in public libraries, schools and community centres, or provisions for spectrum use by community Wi-Fi options).

³⁴ Alliance for Affordable Internet (2022). <https://a4ai.org/meaningful-connectivity/>

Digital Skills and Education

Samoa thematic score – 8

ICT workshops and training are in place for teachers in Samoa, with 70% female enrolment in 2022.³⁵ However, there are still areas for improvement. Women constitute 30-40% of ICT related industry employees including in research developments and projects.³⁶ While approximately 65% of all schools have internet connectivity, the percentage of students' access to the internet at secondary schools is quite low, depending on limited resources which hinders internet accessibility.³⁷

Papua New Guinea thematic score – 3

In Papua New Guinea, IT education and training have not been formally introduced in primary and secondary schools. However, individual schools in PNG have recently been introducing and incorporating digital literacy and ICT in the school curriculums. The STEM School of Excellence Policy Program (2020) introduced the STEM curriculum in college years (year 11 & 12) in six selected schools of Excellence in Papua New Guinea.³⁸

Tonga thematic score – 7.5

All secondary schools in Tonga have internet connectivity.³⁹ Teachers in Tonga received training through the Tonga Accelerated Resilience Program (TARP) on how to use the online Moodle platform for their students, which covered 500 teachers across the country.⁴⁰ While teachers received training from various projects, there are no ongoing training or ICT capacity building plans, which has been identified as an area for systematic improvement.

³⁵ NUS ICT courses enrollment (Semester 1 - 2022). <https://www.mesc.gov.ws/>

National Teacher Development Framework (2018 - 2028) <https://www.mesc.gov.ws/>

³⁶ POPULATION AND HOUSING CENSUS SAMOA GENDER DYNAMICS MONOGRAPH, (2016); Samoa Information Technology Association (SITA) (SITA) (2021-2022); Samoa Labour Force Survey (2017)

³⁷ National Information and Communication Technology in Education Policy (2018 - 2023) <https://www.mesc.gov.ws/>

³⁸ School of Excellence Policy (2020). <http://www.education.gov.pg/documents/SOE-Policy.pdf>

³⁹ Educational Data Intelligence Division (EDID) - Ministry of Education

⁴⁰ Relief Web (2021).

<https://reliefweb.int/report/tonga/ministry-education-and-training-partners-save-children-safeguard-education-across-tonga>

Findings for *Digital Skills and Education* Sub-Themes⁴¹

Indicator	Samoa	PNG	Tonga
<i>Proportion of ICT-qualified teachers in schools</i>	<p>About 70% of teachers are trained and are ICT-qualified teachers in school. The Ministry of Education Sports and Culture (MESC), often conducts training to build the capacity to educate teachers in using technology in teaching and learning. Use of Aptus, Tablet devices, and introducing the use of Moodle platform were some examples of recent training offered by MESC to government teachers.</p>	<p>In Papua New Guinea, ICT education and training have not been formally introduced in primary and secondary schools. A significantly high percentage of the population, including students, have limited ICT literacy and computer knowledge. As a result, the majority of tertiary intakes have little knowledge or experience with computers.</p>	<p>Teachers receive limited trainings and this has been identified as an area for improvement. Currently there are no ongoing systematic training or ICT capacity building plans.</p> <p>Currently there are 31 ICT teachers in public schools (out of 326 total secondary school teachers). The ratio of female to male ICT teachers is 17:14.</p>
<i>Percentage of women in technology and engineering research and development (R&D) fields</i>	<p>Women comprise about 30-40% of ICT related research developments and projects.</p> <p>44% of those employed in the field of Information and Communication are females, while 56% are male.</p> <p>Registered for 2021 - 2022 - Samoa Information Technology</p>	<p>PNG Women in STEM Networks - Women in Engineering:</p> <p>In terms of the national workforce, women are less than 30%. Women are underrepresented, especially the local female engineers. Most IT and engineering courses are male dominated. Females who are successful in the STEM field are made</p>	<p>According to the Tonga Labour Force Survey Report 2018, out of 16,153 Male and 12,445 Female of age 15 years and above, were surveyed:</p> <p>The ratio of female to male technicians and associate professionals in the ICT sector was reported = 5.9%:6.3%</p> <p>No data recorded for research and</p>

⁴¹ Dataset for Women's Rights Online Report Card (2022) - Samoa ([Samoa Information Technology Association \(SITA\)](#)); Papua New Guinea ([Digital ICT Cluster PNG](#)), Tonga ([TWICT](#))

	<p>Association (SITA) (SITA) = Female 31%: Male 69% Active Women in ICT Samoa = Female 27%: Male 73% Professional = Female 58%: Male 42% Technician and Associate Profession = Female 46%: Male 54% Average = 41%</p>	<p>invisible. Females are paid less than males who are in the same field and have graduated from the same university. More efforts need to be made to support women in technical fields of study.</p>	<p>development.</p>
<p><i>Internet access at secondary schools</i></p>	<p>Whilst about 65% internet coverage is available in all schools, the percentage of students' access to the internet at secondary schools is quite low depending on available and limited resources which hinders internet accessibility.</p>	<p>Most students in PNG are not introduced to computers until at tertiary education level. However, individual schools in PNG are slowly introducing and incorporating computers in the school curriculum. The National Broadband Policy (2013) states that all primary and secondary schools should have broadband access, in urban areas, and in those rural areas that have broadband service availability.</p>	<p>All secondary schools have internet access, however there is still very limited access.</p>

KEY ACTIONS AND RECOMMENDATIONS: Digital Skills & Education

Samoa: *Integrate Digital Skills and Education Including Basic Digital Literacy in School Curricula at all Levels of Education.* Ensure all teachers receive enhanced and relevant ICT training. Improve and expand free internet access in all schools, and encourage greater participation of women in ICT related research and developments.

Papua New Guinea: *Invest in opportunities and public awareness of women's career paths in the fields of Science, Technology, Engineering and Mathematics (STEM), and the opportunities that these industries offer.* Introduce IT education in primary schools. Provide ICT literacy and skills training for adults. Train more teachers on digital skills and literacy, and ensure that all schools have access to ICT facilities.

Tonga: *Increase the percentage of women in technology and engineering research and development (R&D).* Invest in targeted initiatives to increase the percentage of young girls and women studying Science Technology Engineering and Math (STEM) and the proportion of ICT-qualified teachers in schools. Increase digital skills of women in the education sector. Increase internet access in primary school levels.

Relevant Content and Services

Samoa thematic score – 7

The Ministry of Health and stakeholders ensure the availability of updated information about reproductive and sexual health rights and services for women and girls online.⁴² The office of the Ombudsman has also set up an online form where people can lodge their complaints about human rights violations, prime ministers referrals, public interest complaints, own motions investigations and domestic violence.⁴³ There is no gender-disaggregated data of the percentage of women personally using mobile financial services, yet there has been an increase in the use of M-tala and My Cash mobile money platforms in Samoa by mobile telecom operators.⁴⁴

Papua New Guinea thematic score – 5

Delivery of better health care services in Papua New Guinea is significantly limited by multiple interrelated factors. The most basic factors are resources and access. Information, such as, sexual and reproductive services or rights is not readily available or distributed through digital channels where women and girls have access. PNG has the highest gender gap in financial inclusion in the region, with women being 29% less likely to have access to formal financial services.⁴⁵ Approximately 75% of the total population is not included in the formal financial sector.⁴⁶

⁴² <https://www.ippf.org/about-us/member-associations/samoa>;
<https://www.health.gov.ws/>;
<https://pacific.unfpa.org/en?fbclid=IwAR1vx37p6fpGoSebfRtgzJTorEkeWoKEySfmZPY1rxzaCS7I3ZlwgjtVOZY>;
<https://www.facebook.com/SAFSa=moa/>
<http://www.samoavictimsupport.org>
<https://www.facebook.com/SamoaNationalYouthCouncil>

⁴³ Ombudsman Act (2013).

⁴⁴ Financial Services Demand Side Survey Report - Samoa (2015);
<https://www.afi-global.org/newsroom/blogs/assessing-the-key-takeaways-from-samoas-financial-services-demand-side-survey/>

⁴⁵ UNCDF (2020).
<https://www.uncdf.org/article/5804/five-reasons-women-in-solomon-islands-and-papua-new-guinea-are-financially-excluded>

⁴⁶ National Financial Inclusion Strategy 2016 - 2020.
http://mddb.apec.org/Documents/2018/SMEWG/DIA/18_smewg_dia_008.pdf

Tonga thematic score – 5.5

Government and non-government organisations contribute to this area, including the Ministry of Internal Affairs, Talitah Project, Tonga Family Health Association (TFHA) and Women and Children Crisis Center (WCCC). TFHA uses mobile text messages to reach their clients, as well as social media platforms such as Facebook and TikTok. The Tonga Family Health Association plays a crucial role in the reproductive health program in Tonga. They report reaching 4,300 clients via blast SMS text messaging services including, 65% female clients and 40% male clients.⁴⁷

⁴⁷ TFHA Tonga - <https://www.facebook.com/Tongafamilyhealth>

Findings for *Relevant Content and Services* Sub-Themes⁴⁸

Indicator	Samoa	PNG	Tonga
<i>Availability of user-friendly information via ICTs (including web/internet, IVR and SMS) about reproductive and sexual health rights and services for women and girls</i>	<p>The Ministry of Health and stakeholders ensure the availability of updated information in local languages about reproductive and sexual health rights and services for women and girls online. Many also access this information via social media.</p> <p>The office of the Ombudsman has also set up an online form where people can lodge their complaints about human rights violations, prime ministers' referrals, public interest complaints, own motions investigations and domestic violence.</p>	<p>Information on sexual and reproductive health services and rights is not readily available or distributed through digital channels where women and girls may have access.</p> <p>General health awareness is also lacking and not made available to the public. The public has limited access to digital platforms to access information on health education or communication. Information transmitted via TV and radio is also still limited.</p>	<p>Government and non-governmental organisations contribute to this area, including the Ministry of Internal Affairs, Talitah Project, Tonga Family Health Association (TFHA) and Women and Children Crisis Center (WCCC). TFHA uses mobile text messages to reach their clients, as well as social media: Facebook and TikTok. However, some topics are very sensitive to Tongan culture and both genders shy away from discussing reproduction and sexual health topics.</p> <p>TFHA plays a crucial role in the reproductive health program in Tonga. They report reaching 4,300 clients via SMS text messaging service, including 65% female and 40% male clients</p>
<i>Percentage of women personally</i>	There is no gender disaggregated data on	There is a large gender gap in financial and	Based on the Multiple Indicators Cluster

⁴⁸ Dataset for Women's Rights Online Report Card (2022) - Samoa ([Samoa Information Technology Association \(SITA\)](#)); Papua New Guinea ([Digital ICT Cluster PNG](#)), Tonga ([TWICT](#))

using mobile financial services

the percentage of women personally using mobile financial services, yet there has been an increase in the use of M-tala and My Cash mobile money platforms in Samoa by mobile telecom operators.

According to the Financial Services Demand Side Survey Report (2015) 35.1% of adult women have been recorded as actively holding bank deposit accounts. The Report does not distinguish information on gender, but states the percentage of adults receiving money (e-money) in the last 12 months to be 2.71%.

digital inclusion, as only 16% of women own mobile phones and less than 12.5% of women hold deposit accounts.

Women appear to have significantly lower levels of financial inclusion, even where financial services are available in urban communities.

PNG's geographical terrain makes government service delivery in most parts of the country a real challenge, compounded by high illiteracy rate; low technological innovation and low internet penetration. It is estimated that about 75% of the total population is excluded from the formal financial sector.

Survey (2019), more women than men from age 15 – 49 reported having carried at least one “computer-related activity” during the last 3 months. This shows that women are more active than men in using computer services. However, more training and awareness on how to use online financial services should be provided.

The National Reserve Bank of Tonga (NRBT) is committed to promoting financial inclusion by developing Tonga's national financial inclusion strategy (NFIS) to support the delivery of financial services.

Although there is no national data collected on digital financial services at this stage, banks and internet service providers were approached in collecting relevant data for this indicator.

KEY ACTIONS AND RECOMMENDATIONS: Relevant Content and Services

Samoa: *Increase Public Awareness of and Access to Relevant Content and Services.* In order to increase awareness of relevant content and services, the Ministry of Health and women's rights groups and stakeholders in the area of reproductive and sexual health right should: 1) continue to create more public awareness on the services that they offer through providing more training and workshops to ensure women have access to information and resources; and 2) The Ministry of Health and all relevant stakeholders must ensure that all necessary information is updated and relevant, using various online platforms that are accessible to all.

Papua New Guinea: *Prioritise Relevant Online Content for Women, and Amplify Women's Voices.* Effective implementation of gender mainstreaming requires both the support of women in decision-making positions and enabling organisations and institutions. Stakeholders including aid donors, should consider ways to challenge a reticent government, and support civil society groups and activists to raise the profile of gender issues across the board including through public information campaigns. Encourage more women in leadership roles, and support women's digital financial inclusion with relevant services.

Tonga: *Focus on Amplifying Women and Girls' Digital Skills and Use of Mobile/Web-based Digital, Financial services and E-Services.* Provide training and empowerment opportunities for women entrepreneurs. Increase the availability of user-friendly information via ICTs (including web/internet, IVR and SMS) about digital entrepreneurship, financial services, reproductive and sexual health rights and services for women and girls.

Online Safety

Samoa thematic score – 7

Data protection principles, including law and good practices, are currently considered and implemented through increased gender-based violence (GBV) awareness programs, due to the advocacy efforts of the Ministry of Women, Community Social Development government partners, non-governmental organisations and civil society. However, there is no policy specifically for online gender-based violence, but the Samoa Safety Act (2013) and Samoa Crimes Act (2013) are applied and adopted as they mention penalties against cybercrimes and electronic offences.⁴⁹

Papua New Guinea thematic score – 6.5

The Government and NICTA have the Cybercrime Act (2016) in place to regulate activities, crimes and offences committed through the use of technology and ICT-related devices. PNG does not currently have existing legislation for data protection. As referenced in the Papua New Guinea National Strategy to Prevent and Respond to Gender-Based Violence (2016-2025), as of 2019, “30% of reported gender-based violence cases were effectively dealt with through referral and justice systems.”⁵⁰ Enforcement is still developing how to handle criminal activities and violence committed online, however, there are a growing number of interventions by the Government to curb online gender-based violence related incidents through the support of parliamentary committees.

Tonga thematic score – 8

National laws and legislations have been established, and are currently implemented nationwide to address and ensure data protection. These include the Computer Crimes Bill (2019) and the Computer Crimes Act and Communications Act (2015).⁵¹ It is reported that

⁴⁹ Samoa Information Technology Association (SITA). (2022). Women’s Right Online Report Card. Samoa.

⁵⁰ Papua New Guinea National Strategy to Prevent and Respond to Gender-Based Violence (2016-2025). <https://femilipng.org/wp-content/uploads/National-Strategy-to-Prevent-and-Respond-to-GBV.pdf>

⁵¹ Computer Crimes Bill (2019)

https://ago.gov.to/cms/images/LEGISLATION/BILLS/2019/2019-0025/ComputerCrimesBill2019.pdf?zoom_highlight=data+protection#search=%22data%20protection%22

Computer Crimes Act (2016)

https://ago.gov.to/cms/images/LEGISLATION/PRINCIPAL/2003/2003-0014/ComputerCrimesAct_2.pdf?zoom_highlight=data+protection#search=%22data%20protection%22 Communications Act (2015)

https://ago.gov.to/cms/images/LEGISLATION/PRINCIPAL/2015/2015-0026/CommunicationsAct2015_1.pdf?zoom_highlight=data+protection#search=%22data%20protection%22

training and clear guidelines are provided to both the police and judiciary on how to deal with infringements and online gender-based violence.⁵²

⁵² TWICT. (2022). Women's Rights Online Report Card. Tonga.

Findings for *Online Safety* Sub-Themes⁵³

Indicator	Samoa	PNG	Tonga
<i>Extent to which law enforcement agencies and the courts are taking action in cases where ICT tools are used to commit acts of gender-based violence</i>	Data protection principles, including law and good practices, are currently considered and implemented through increased GBV awareness programs, due to the advocacy efforts of the Ministry of Women, Community Social Development government partners, non-governmental organisations and civil society. However, there is no policy specifically for online gender-based violence, but the Samoa Safety Act 2013 and Samoa Crimes Act 2013 are applied and adopted as they mention penalties against cybercrimes and electronic offences.	By 2019, 30% of reported GBV cases were effectively dealt with through referral and justice systems. Enforcement is still developing how to handle criminal activities and violence committed online. However, there is a growing number of interventions by the Government to curb online GBV-related incidents through the support of parliamentary committees.	There are clear legal protections and laws in place with training and guidelines provided to both the police and judiciary on how to deal with such issues. The Computer Crimes Bill (2019) has an outline of the different types of computer-based offences with sub-categories.
<i>Existence and robustness of national data protection laws</i>	The Telecommunication Act (2005) has the Privacy and Confidentiality sections for Telecom services including data protections. The “Get	The Government and NICTA have the Cybercrime Act (2016) in place to regulate activities, crimes and offences made through the use of ICT-related devices.	National laws and legislations have been established and are currently implemented nationwide to address and ensure data protection. These

⁵³ Dataset for Women’s Rights Online Report Card (2022) - Samoa ([Samoa Information Technology Association \(SITA\)](#)); Papua New Guinea ([Digital ICT Cluster PNG](#)), Tonga ([TWICT](#))

	<p>Safe Online Data Protection Principles” provide a framework for law and good practice in Samoa’s context, which are regularly reviewed.</p> <p>Generally, a legal or regulatory data protection framework exists that is broadly applicable, but some data related to e-commerce and digital economy is missing from relevant laws such as the E-commerce Strategy for Samoa.</p>	<p>Papua New Guinea does not presently provide legislation for data protection which is a significant gap.</p>	<p>include the Computer Crimes Bill (2019), Computer Crimes Act and Communications Act (2015).</p>
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KEY ACTIONS AND RECOMMENDATIONS: Online Safety

Samoa: *Review National Data Laws and Emphasise Awareness.* Government must review, enforce and increase awareness on guidelines for law enforcement agencies to deal with issues where ICT tools are used to commit acts of GBV. Review and integrate national data protection laws from all the existing regulatory data protection frameworks in different sectors to fully support cyber, human and data security. In order to do this, by 2023, relevant agencies should review women's experiences and perceptions of privacy, data protection and personal data to inform policy strategies and enforce awareness to deal with issues where information technology tools are used to commit acts of GBV. Internet Service Providers must give people control over their privacy with clear and meaningful choices to control processes involving their data.

Papua New Guinea: *Promote Online Safety that Protects Women's Rights.* Papua New Guinea's ICT department and related agencies need to provide advocacy and online safety trainings on the importance of data privacy and online safety. Revise policies to track, monitor and address GBV online using ICT technology. Allow women to uphold their digital rights and a user-friendly and secure experience online.

Tonga: *Continue to Develop Robust National Data Protection Laws* Provide more awareness of ending GBV, including online. Continue to develop and sustain the police and judiciary capacity to address online gender-based violence through training and capacity building.

WOMEN'S RIGHTS ONLINE: Closing the digital gender gap for gender equality in the Pacific region

Policies and legislation to ensure gender equality and digital equality are vital to create fairer, more inclusive and sustainable societies. Women and girls' affordable access to the internet and participation in the digital sphere benefits individuals, families, communities, and builds stronger economies. Governments in the Pacific Island countries must urgently invest in strategies to deliver affordable internet access, digital education and innovation opportunities to close the gender digital divide and create relevant and empowering services. Without this, millions who remain offline or without meaningful connectivity are left behind in accessing critical public services, health information, education opportunities, and economic benefits. As this report has shown, the majority of those who are offline are women.

Countries cannot meet targets for universal internet access, digital development, or women's equality without closing the persistent digital gender gap and investing in multi-stakeholder and multi-sector harmonisation strategies.

This requires investment in infrastructure to eliminate gendered barriers in basic access, and reducing the high cost of connectivity. Prioritising digital skills and education, local innovation and investment in women's contribution in technology fields is vital to dismantling barriers to women's participation in society and in the economy. For women's digital equality, countries must take concerted efforts to end all forms of GBV, including online and where digital technologies are used to commit acts of gender-based violence and infringements on data protection and online rights.

The empirical evidence from the three countries in the Pacific region in this report has highlighted areas where countries are making efforts to close the gender digital divide – as well as calling attention to areas where policy action is urgently needed.

Pacific Island governments must urgently implement gender-responsive ICT policies with clear steps to reduce the digital gender gap and move towards a gender-inclusive future.

While specific strategies should be locally developed through multi-stakeholder consultation involving women's groups and civil society, the Web Foundation's report, [Women's Rights Online: Closing the digital gender gap for a more equal world](#)⁵⁴ outlines a

⁵⁴ <http://webfoundation.org/docs/2020/10/Womens-Rights-Online-Report-1.pdf> (see pages 24-28)

five step framework for governments and companies to urgently close the digital gender gap in meaningful connectivity, and to put in place strategies to advance women's rights and participation online.

1. Collect and publish gender data in the technology sector.

- a. Decision makers need gender disaggregated data (data taking into account specific experiences of men and women) to create policies that address the specific needs of women and tackle the digital gender divide.
 - i. Governments must commit to regularly collecting and publishing gender data in the technology sector to inform policies and assess progress towards closing the digital gender gap.
 - ii. The raw data should be published in open and reusable formats so that researchers and others can do further analysis on this data and support new initiatives on women and technology.
 - iii. Gender data should be analysed using a women-centred approach, with women used as the reference group for analysis.
 - iv. Governments should document the methodology of their data collection and analysis, including any changes and the rationale for these changes.

2. Adopt Meaningful Connectivity as the target for internet use.

- a. [A4AI's meaningful connectivity target](#) raises the bar from basic internet access to give a fuller picture of the quality of internet access people have. The meaningful connectivity target can help policymakers design better policies and interventions to close the digital gender gap and connect more people to a useful, empowering internet.
 - i. Governments should adopt meaningful connectivity as a new target for internet access, adoption and use to inform ICT policies and connectivity strategies.
 - ii. Implementation of the meaningful connectivity target should be gender-responsive. This means:
 1. Gender data and analysis is applied to inform the development of policies, strategies and ICT sector investments.
 2. Gender advocates and experts are involved in the policy and planning process from the start to ensure women-centric policy Best practice from Mozambique development.

3. Promote digital skills and ICT education for women and girls.

- a. Digital literacy is one of the biggest barriers to access and women and girls are most impacted by a lack of digital skills. This is influenced by factors such as education access, income inequality, access to digital devices, and cultural biases discouraging women and girls from using technology. Promoting digital skills and ICT education is important for encouraging women and girls to use the internet, to create content online and navigate the online world safely, while recognising governments and companies must do more to prioritise measures that make the internet a safer space. Digital literacy is key to translating internet access into empowerment. Governments and companies should:
 - i. Ensure women and girls have the opportunity to improve their digital skills and information literacy so they can access, use and evaluate information, and use the internet to its full potential.
 - ii. Invest in ICT education and digital literacy by supporting community-led and peer-driven digital skills and empowerment initiatives for women of all ages, focused on problem solving, group mentorship, information and data literacy, content creation, and leadership skills, in addition to technical skills.
 - iii. Partner with schools and community centres to offer safe spaces for women of all ages to participate in information and communication technology educational programmes.
 - iv. Ensure that all ICT education and training programmes are developed considering the needs of women and girls across all educational levels.

4. Support women's participation in technology development, local content creation and ICT innovation.

- a. Closing the digital gender gap also means making sure that women are equal creators and producers online. This is a cornerstone of creating a web for a more equal world. Today, women make up less than a third of professionals in the technology sector. As the world goes digital, it is important that the perspectives of women and girls around the world are reflected in the design and development of technology, infrastructure and innovation systems. If the majority of technology creators are men, then the design of technology, products and services will be built through the eyes of men, and companies

will miss out on important perspectives to make better policies, products and services that reach and benefit more people.

- i. Governments should create a national strategy to support technology education, innovation and leadership for women of all ages.
- ii. This strategy — and its investments and programmes — should include time-bound gender equality targets to support early-stage female entrepreneurs, technologists and content creators of all ages to grow and flourish as creators of digital content, infrastructure and systems.

5. Safeguard the online privacy of women and girls.

- a. Women and girls face disproportionate risks to their data rights online, particularly in the form of online abuse, harassment and threats of violence. This means that violation of women’s personal data rights can have an outsized impact on their other human rights, like freedom of expression, assembly, and psychological and physical safety. Both governments and companies have a role to play in helping to keep people safe by protecting the right to privacy — which makes the web safer for women, and for everyone. Governments must:
 - i. Collect data on women’s experiences and perceptions of privacy, data protection and personal data to inform policy strategies.
 - ii. Pass robust privacy and data protection legislation that addresses women’s specific concerns.
 - iii. Enforce laws that uphold privacy and personal data protection, ensuring that women’s human rights protected offline are also protected online.

Reference List

Alliance for Affordable Internet (A4AI). (2022). "Meaningful Connectivity."

<https://a4ai.org/meaningful-connectivity/>

A4AI. (2017). "Redefining affordability to achieve universal internet access."

<https://a4ai.org/affordable-internet-is-1-for-2/>

Asia Development Bank. Country Partnership Strategy (2016-2022)

<https://www.adb.org/sites/default/files/linked-documents/cps-png-2016-2020-ga.pdf>

Communications Tariff Rules - Tonga. (2018)

<https://www.communications.gov.to/images/2020/RulesAndRegulations/CommunicationsTariffRules2018.pdf>

Computer Crimes Bill - Tonga (2019).

https://ago.gov.to/cms/images/LEGISLATION/BILLS/2019/2019-0025/ComputerCrimesBill2019.pdf?zoom_highlight=data+protection#search=%22data%20protection%22

Computer Crimes Act - Tonga. (2016).

https://ago.gov.to/cms/images/LEGISLATION/PRINCIPAL/2003/2003-0014/ComputerCrimesAct_2.pdf?zoom_highlight=data+protection#search=%22data%20protection%22

Communications Act - Tonga. (2015).

https://ago.gov.to/cms/images/LEGISLATION/PRINCIPAL/2015/2015-0026/CommunicationsAct2015_1.pdf?zoom_highlight=data+protection#search=%22data%20protection%22

Country Partnership Strategy: Papua New Guinea (2016–2020). Asia Development Bank.

<https://www.adb.org/sites/default/files/linked-documents/cps-png-2016-2020-ga.pdf>

Educational Data Intelligence Division (EDID) - Ministry of Education, Tonga. (2021). Cited at Relief Web.

<https://reliefweb.int/report/tonga/ministry-education-and-training-partners-save-children-safeguard-education-across-tonga>

Financial Services Demand Side Survey Report - Samoa. (2015).

<https://www.afi-global.org/newsroom/blogs/assessing-the-key-takeaways-from-samoas-financial-services-demand-side-survey/>

GSMA. (2022). The Mobile Gender Gap Report.

<https://www.gsma.com/mobilefordevelopment/blog/the-mobile-gender-gap-report-2022/>

GSMA. (2022). The Mobile Gender Gap Report.

<https://www.gsma.com/r/wp-content/uploads/2022/06/The-Mobile-Gender-Gap-Report-2022.pdf>

GSMA. Digital Transformation: The Role of Mobile Technology in Papua New Guinea (2019)

<https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2019/03/Digital-Transformation-The-Role-of-Mobile-Technology-in-Papua-New-Guinea.pdf>

International Telecommunications Union (ITU). (2021). Measuring Digital Development: Facts and Figures. <https://www.itu.int/itu-d/reports/statistics/2021/11/15/the-gender-digital-divide/>

Ministry of Internal Affairs - Tonga (2020) [Ministry of Internal Affairs Corporate Plan 2020/2021 - 2022/2023](#).

National Financial Inclusion Strategy (2016 - 2020).
http://mddb.apec.org/Documents/2018/SMEWG/DIA/18_smewg_dia_008.pdf

Multiple Indicator Cluster Survey - Tonga. (2019).
<https://tongastats.gov.to/download/171/mics-survey/4679/2019-mics-survey-findings-report.pdf>

National Information and Communication Technology in Education Policy - Samoa (2018 - 2023).
<https://www.mesc.gov.ws>

NUS ICT courses enrollment (Semester 1 - 2022 - Samoa). <https://www.mesc.gov.ws/>

National Policy for Gender Equality from 2016 to 2020, MWCSA, Australia Aid.

National Policy on Gender Equality and Rights of Women and Girls 2021-2031 (MWCSA)

National Teacher Development Framework (2018 - 2028). <https://www.mesc.gov.ws/>

Ombudsman Act - Samoa. (2013).

Pacific Islands Forum. (2020).
<https://www.forumsec.org/wp-content/uploads/2020/08/2020-Forum-Economic-Ministers-Meeting-Outcomes.pdf>

Papua New Guinea National Strategy to Prevent and Respond to Gender-Based Violence (2016-2025).
<https://femilipng.org/wp-content/uploads/National-Strategy-to-Prevent-and-Respond-to-GBV.pdf>

Pathway for Development of Samoa (FY2020-21 -FY2025-26).

Population And Housing Census Samoa Gender Dynamics Monograph. (2016).

Right to Information Policy for Samoa. (MCIT - Draft October 2021).

Samoa Bureau of Statistics. (2022). Employment Statistics.
https://www.sbs.gov.ws/images/sbs-documents/Finance/Employment/2022/Employment_Report_March_2022.pdf.

Samoa Demographic and Health Survey-Multiple Indicator Cluster Survey. (2019-2020). Samoa Bureau of Statistics.

Samoa Gender Dynamics Monograph. (2020). Gender and Education - Facts and Implications.

Samoa Gender Dynamics Monograph (2016). Population and Housing Census.

Samoa Labour Force Survey. (2017).

Samoa Strategy. Samoa E-Commerce Strategy and RoadMap. (MCIL - Draft version 2.6 2 May 2022).

School of Excellence Policy - PNG. (2020). <http://www.education.gov.pg/documents/SOE-Policy.pdf>

Samoa Information Technology Association (SITA) (SITA) (2021-2022)

TFHA Tonga <https://www.facebook.com/Tongafamilyhealth>

The Pathway for the Development of Samoa (MOF). (FY2021-22 - FY2025-26).
<https://www.mof.gov.ws/wp-content/uploads/2022/02/Pathway-for-the-Development-of-Samoa.pdf>

[Tonga Cable Press Release 20 August 2020. http://tongacable.to/press-release-20th-august/](http://tongacable.to/press-release-20th-august/)

Tonga Communications Act. (2015).
https://ago.gov.to/cms/images/LEGISLATION/PRINCIPAL/2015/2015-0026/CommunicationsAct2015_1.pdf

Tonga-Fiji Submarine Cable Project Report. (2020).
<https://www.adb.org/sites/default/files/project-documents/44172/44172-022-pcr-en.pdf>

Tonga Statistics Department (TSD). (2019) Multiple Indicator Cluster Survey 2019.
<https://tongastats.gov.to/download/171/mics-survey/4679/2019-mics-survey-findings-report.pdf>

Tonga Statistics Department. (2018). Labour Force Survey.
<https://tongastats.gov.to/survey/labour-force-survey/>

UNCDF. (2020). "Five Reasons Women in Solomon Islands and Papua New Guinea are Financially Excluded."
<https://www.uncdf.org/article/5804/five-reasons-women-in-solomon-islands-and-papua-new-guinea-are-financially-excluded>

UNCDF. (2022). "Fast-tracking implementation of eTrade Readiness Assessments"
https://unctad.org/system/files/official-document/dt1stict2022d5_en.pdf

UNCDF. (2022). UNCDF Scorecards - <https://ides.uncdf.org/about-the-scorecard>

UN University & EQUALS Global Partnership. (2019). "Taking Stock: Data and Evidence on Gender Equality in Digital Access, Skills and Leadership."
<https://i.unu.edu/media/cs.unu.edu/attachment/4040/EQUALS-Research-Report-2019.pdf>

UNESCAP (2018). Broadband Connectivity in the Pacific Islands.
https://www.unescap.org/sites/default/files/PACIFIC_PAPER_Final_Publication_1_1.pdf

Women's Rights Online Report Card - Papua New Guinea. (2022). Digital ICT Cluster PNG.

Women's Rights Online Report Card - Samoa. (2022). Samoa Information Technology Association (SITA).

Women's Rights Online Report Card - Tonga. (2022). TWICT.

World Economic Forum. (2022). "How to close the digital gender divide and empower women."
<https://www.weforum.org/agenda/2022/03/how-to-close-digital-gender-divide/>

World Wide Web Foundation. Women's Rights Online Digital Gender Gap Audit Scorecard (2022)
<https://webfoundation.org/research/digital-gender-gap-audit/>

World Wide Web Foundation. (2020). "The gender gap in internet access: using a women-centered method".
<https://webfoundation.org/2020/03/the-gender-gap-in-internet-access-using-a-women-centred-method/>

ANNEX 1 - Research Methodology and Limitations

The scorecard is based on five key themes which are divided into 14 indicators to assess qualitatively and quantitatively the state of women's digital inclusion and empowerment. These are:

- A. Internet Access and Women's Empowerment,
- B. Affordability,
- C. Digital Skills and Education,
- D. Relevant Content and Services for Women,
- E. Online Safety.

Primary and secondary research were carried out by local partners in Samoa, Tonga, and Papua New Guinea in 2022.

This included surveys⁵⁵, interviews, desk research and policy analysis following guidelines from the Web Foundation's *Digital Gender Gap Audit Scorecard Toolkit*.⁵⁶

The sample selection for Samoa is based on both population size and geographical location to ensure representativeness (Probability Proportional to size – PPT). This means that the chance of being selected for the survey increases with the size of a particular district to ensure the national sample is a good representative of the Samoan population.

Based on the geographical sub regions on the Samoa Bureau of Statistics (SBS) census division, Samoa is divided into 4 sub regions: 1) Savaii, 2) Urban Upolu, 3) Northwest Upolu

⁵⁵ In Samoa, primary data was collected for this project using a household survey methodology to supplement analysis given a lack of gender-disaggregated ICT Data. Data collection was conducted by Samoa Information Technology Association (SITA). The survey was administered based on the geographical sub regions from the Samoa Bureau of Statistics (SBS) census division: 1) Apia Urban Area, 2) Northwest Upolu, 3) Rest of Upolu and 4), Savaii. The sample included 415 women and 148 men. The Samoa DHS-MICS (2019-2020) survey has limited data of relevance for the Digital Gender Gap Scorecard indicators beyond assessing basic internet access across demographics. It captures "Percentage of women and men aged 15-49 years who used the internet." The household survey carried out for the purpose of this study in Samoa was designed to collect new survey data beyond internet access, to include: reasons for use of the internet, empowering use of the internet, digital skills, access to relevant content and services, online safety and gender-based violence online etc. This has provided additional, more robust and contextual data and insights specifically on women's rights online. This is the inaugural survey developed to monitor existing gender gaps beyond basic internet access, to ensure equal and appropriate access to technology and services are offered and available, to promote women empowerment and to achieve affordable internet access and opportunities to both women and men.

⁵⁶ http://webfoundation.org/docs/2016/12/WRO-Digital-Gender-Gap-Audit_Toolkit.pdf

and 4) the rest of Upolu. The target age group is 15 years onwards, in which convenience sampling will be used, based on 1 participant selected per household to represent a good indicator of population density. Initially they proposed a sample size of 500 cases but they added a few more. Large sample size yields smaller margins of error and are more representative but due to the divide lockdown it wasn't possible to increase the sample size. Samoa noted that a very large sample size would cost and the time undertaken to complete the research.

Tonga's research method is based on the themes and indicators outlined in the Toolkit, a combination of qualitative and quantitative techniques will be employed to gather data and information for this research. The tools will primarily use document screening and document analysis of reports published by key government agencies and organisations in Tonga. In cases where there is no existing data or information, surveys and focus groups discussion will be used to collect the relevant information (The University of Newcastle, 2019). The details of the focus groups proposed for this research is explained in the sampling section.

The gender-disaggregated data on women and ICT in Papua New Guinea leans more towards descriptive research. However, throughout the duration of the research, there may be factors that point to an explanatory research nature, as the possibility of existing data sources publicly unavailable and therefore thought to be inexistent, are confirmed. As a result, the research methods and tools selected were suited to "exploring" more of the data that's available in secondary data sources. Descriptive research on the other hand involves the collection of primary data sources.

The aim was to assess the extent to which all people have access to affordable, safe, meaningful internet access; digital skills and training opportunities; and access to relevant information, services and opportunities via the internet. These gender audit scorecards involve assessing the policy and institutional context; collecting new household survey data on women's access and use of the internet.

Through primary and secondary data analysis, the tool closes the gap in gender and ICT data, providing a framework to assess the extent to which key policies and programs are in place that would support women to access and use the internet affordably, feel safe, learn digital skills, build new technologies, use relevant content and services, and claim rights online.

The Web Foundation's *Digital Gender Gap Audit Scorecard* is based on an expert assessment methodology whereby indicators are scored based on a scale of 0 to 10. A score of 0 indicates little or nothing is being done with regards to women's rights online in the specified country, while a score of 10 implies the country is doing everything possible for women's rights online.

This research has been conducted in over twenty countries across Africa, Asia and Latin America⁵⁷. It has also been used by partners to initiate multi-stakeholder dialogue and to develop gender-responsive ICT policies to close the gender digital divide in their countries. This is the inaugural Digital Gender Scorecard research in the Pacific region.

⁵⁷ Web Foundation. Women's Rights Online Digital Gender Gap Audit Scorecard (2022)
<https://webfoundation.org/research/digital-gender-gap-audit/>

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