



TRR

Telecommunications &
Radiocommunications
Regulator

2017

Annual Report

A COMMUNICATIONS ENVIRONMENT THAT
ENRICHES THE SOCIAL, CULTURAL, CUSTOMS
AND COMMERCIAL FABRIC OF VANUATU





In accordance with section 11 of the Telecommunications and Radiocommunications Regulation Act No. 30 of 2009 (hereinafter referred to as “the Act”) the Regulator must provide the Minister with an Annual Report as follows:

11 Annual report
(1) The Regulator must provide to the Minister an annual report including, but not limited to:
(a) a summary of the activities of the Regulator; and
(b) such financial statements and auditor’s reports as are required by this Act or other law; and
(c) a list of all entries and deletions to the Register in the preceding year; and
(d) a summary of material litigation involving the Regulator; and
(e) a list of consultants and advisors retained by the Regulator and a description of the matters in relation to which they have consulted or advised.
(2) A contravention of subsection (1) is deemed to be a serious breach of duty by the Regulator.
(3) The annual report provided to the Minister pursuant to subsection (1) must be made available to the public on the website.

This Annual Report for 2017 is provided for public transparency and to fulfil this obligation.

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30 June, 2018

Honourable Prime Minister
Honourable Charlot Salwai Tabimasmass,
Minister Responsible for Telecommunications/ICT
PMB 9057 Port Vila

Dear Honourable Prime Minister,

It is with great pleasure to once more provide you, as the Prime Minister and Minister responsible for Telecommunications/ICT, with TRR's 2017 Annual Report; my third Report as Vanuatu's first Ni-Vanuatu Regulator.

TRR, under its legal mandate in section 11 of the Telecommunications and Radiocommunications Act of 2009 (the Act), is obliged to provide an Annual Report for each calendar year to the Honourable Minister, Minister responsible for Telecommunications/ICT. Since the establishment of the TRR in 2008, it has been faithfully delivering on this important obligation.

In accordance with the Act, the Report must include, but is not limited to, a summary of the activities of TRR, audited financial statements including an auditor's report, a list of entries and deletions in the Register in the preceding year, a summary of material litigation involving TRR, and a list of consultants and advisors retained by TRR. This report fulfils that objective and legal requirement on TRR for its work in 2017 and also transparently informs our many stakeholders of TRR's recent activities.

The TRR is, at all times, fulfilling its role observing and implementing its mandatory functions and obligations as stipulated in section 7 (12) of the Act. Importantly, the said section clearly outlines that *"The Regulator must act independently and impartially in performing its responsibilities, functions, duties and powers set out in the said section of the Act and other related laws of Vanuatu"*.

Once again, I wish to assure you Hon. Prime Minister that I have, at all times, been adhered to this critical responsibility and acted fairly, independently and impartially in performing all of my functions under the Act.

In enforcing all aspects and, particularly, the mandatory obligations of the Act, and in making such independent and impartial decisions, determinations and orders, the outcomes of TRR's work, as we have experienced, are being recognized not only nationally but regionally and internationally as well. The approach TRR has taken has signalled to all key stakeholders, both locally and internationally, that the regulatory regime is not only effective, but that it also enables and facilitates a successful, sustainable and fully competitive telecommunications sector in Vanuatu.

Therefore, I'm strongly of the view that since TRR is an effective and competent Regulatory body, with empirical evidence to back up that view, the ongoing independence of TRR, free of any external interference in decision making, is a critical and essential need for it to operate and regulate fairly, effectively and impartially, and for it to continue to drive and maintain sustainable market competition in Vanuatu; and also, importantly, to keep the state of market competition environment sustainable, attractive, healthy and orderly at all times.

This year, we have continued to uphold, build on and further raised the bar on Vanuatu's standing in the region, and TRR's efforts as an exemplary regulator. I could not be prouder of the current capable TRR team and the outcomes TRR has achieved in what has proven a very trying regulatory period. TRR has shown determination and resilience, an ability to withstand external pressure and still deliver, and has produced substantial outcomes for the benefit of all people in this country.

The 2017 Annual Report provides detailed information of the activities TRR has engaged in during the year and also includes its financial statement. A soft copy of the report is available from TRR's website at www.trr.vu for our stakeholders and interested parties/persons; particularly those who may not have received or be able to access to, a hard copy of the Report.

I am happy and proud to inform you that despite the challenges and heavy pressures faced, TRR has met all of its main deliverables and outcomes expected as outlined in this Report.

A highlight was the reduction of the International capacity internet bandwidth at a wholesale level which has indirectly benefited consumers in terms of lower prices and promotional offers currently offered by existing operators, TVL, Digicel, Wantok and the others. Other highlights include providing conducive regulatory environment for the upgrade of all tower sites across Vanuatu to 3G+ and the roll out of 4G network in the main communities and centres of the main islands of Vanuatu, and full achievement of the Government's 2013 Universal Access Policy (UAP) aims and expectations with a predictive coverage of 98.8% - 0.8% in excess of the policy criterion. The other successful achievement is the successful management and administration of the World Bank Grant an amount of USD\$ 2,730,000 granted to the Vanuatu Government, administered by the TRR which saw the objective of that grant has been fulfilled by having a Ni-Vanuatu Regulator regulating the industry since December 2, 2015.

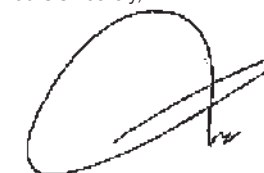
I am pleased to also inform you that the mobile penetration continued to increase. As of December 2017, mobile penetration is now 87.3% compared to 80.7% in 2016. The mobile penetration rate for Vanuatu of 87.3% far exceeds the International Telecommunications Unions' (ITU) estimated rate of 70.4% penetration for countries classified as Less-Developed Countries (LDC's) of which Vanuatu is a member.

Mobile Internet subscription has also grown from 5,000 in 2014, estimated to be around 80,000 or more in 2017.

TRR will always continue to fulfil its role in ensuring appropriate legislative instruments are developed only where required, licences are granted or revoked as required, effective and appropriate monitoring of industry is implemented to ensure a fair, competitive and sustainable market environment for our consumers, citizens of Vanuatu are maintained.

TRR will continue to keep you regularly abreast of telecommunications market developments and will provide you with its support in achieving the Government's ICT objectives.

Yours sincerely,



Dalsie Green Baniala
Telecommunications and Radiocommunications Regulator



A message from the Regulator

IT IS WITH PLEASURE THAT I PROVIDE TRR'S 2017 ANNUAL REPORT; MY THIRD REPORT AS VANUATU'S FIRST NI-VANUATU REGULATOR.

TRR, under its legal mandate in section 11 of the Telecommunications and Radiocommunications Act of 2009 (the Act), is obliged to provide an Annual Report for each calendar year to the Honourable Minister, Minister responsible for Telecommunications/ICT. Since the establishment of the TRR in 2008, it has been faithfully delivering on this important obligation.

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I wish to assure you that the TRR is, at all times, fulfilling its role, and observing and implementing its mandatory functions and obligations as stipulated in section 7 (12) of the Act. Importantly, this section clearly outlines that "The Regulator must act independently and impartially in performing its responsibilities, functions, duties and powers set out in the said section of the Act and other related laws of Vanuatu". In that respect I have, at all times, been adhered to this critical responsibility and acted

fairly, independently and impartially in performing all of my functions under the Act.

In enforcing all aspects and, particularly, the mandatory obligations of the Act, and in making such independent and impartial decisions, determinations and orders, the outcomes of TRR's work, as we have experienced, are being recognized not only nationally but regionally and internationally as well. The approach TRR has taken has signalled to all key stakeholders, both locally and internationally, that the regulatory regime is not only effective, but that it also enables and facilitates a successful, sustainable and fully competitive telecommunications sector in Vanuatu.

I am strongly of the view that since TRR is a body, with empirical evidence to back up that view, the ongoing independence of TRR, free of any external interference in decision making, is a critical and essential need for it to operate and regulate fairly, effectively and impartially, and for it to continue to drive and maintain sustainable market competition in Vanuatu; and also, importantly, to keep the state of market competition environment sustainable, attractive, healthy and orderly at all times.

TRR's need to make independent decisions and undertake the application of its powers is an important power and best approach given technology is fast evolving; considering the over the top

services (OTT), the Internet of Things/ Internet of Everything (IoT/loE), cybercrime activities and vital data privacy. To ensure these issues/matters are appropriately and independently handled, and that Vanuatu and its citizens are protected and safe at all times, the critical (to all sectors) telecommunications/ICT sector relies and depends upon such a regime and one that TRR is currently upholding. Given this, there has to be an independent referee – TRR - with the ability and confidence under the Act to be able to regulate effectively and appropriately and 'blow the whistle' as and when necessary. This is particularly so given there are multiple layers of market players (the submarine cable Operators, Satellite providers, OTT providers, the IoT/loE providers, Internet services providers, Telecommunications providers, Internet Protocol broadcasters, Digital Financial Operators/Banks providers and many more), in the telecommunications and Technology/ICT world.

This year, we have continued to uphold, build on and further raised the bar on Vanuatu's standing in the region as an exemplary regulator. I could not be prouder of the current capable TRR team and the outcomes TRR has achieved in what has proven a very trying regulatory period. TRR has shown determination and effective and competent Regulatory resilience, and has produced substantial outcomes that benefit everyone in Vanuatu.

A soft copy of the 2017 Annual Report is available from TRR's website at www.trr.vu for our stakeholders and interested parties/persons; particularly those who may not have received or be able to access to, a hard copy of the Report.

2017 has been a demanding, difficult and challenging year but, at the same time, it has been a very fulfilling year for TRR, with many achievements and sound outcomes reached. This is particularly demonstrated whereby the citizens of Vanuatu are now currently enjoying the benefit of 4G coverage in the main communities of the main Islands and, importantly, 3G+ and 3G coverage across Vanuatu. This has happened through the hard work and the willingness of the two main Operators (TVL and Digicel Vanuatu Limited), under TRR's Universal Access Policy (UAP) management, to improve existing and roll-out new services into many islands of Vanuatu.

The reduction of cost of international internet capacity at the wholesale level, where the Regulator has ordered a prize reduction from USD\$340.00 to a range from USD\$240.00 to USD\$285.00 per Megabits per second, has significantly contributed to this result and the provision of more volume of bandwidth purchased by consumers at the retail level, and at a very affordable price rate.

In spite of its achievements and continued effective and appropriate regulation of the sector in 2017, TRR experienced considerable harsh, unfair and unjust criticism and substantial external pressures. Very disappointingly,

this has included interference political influence channelled through the respective Government Official; i.e. an illegal attempt to suspend, as well as a period of suspension of me as the Regulator. (This action is subject to a Court challenge and, to date, the Court has found in favour of the TRR).

With reference to suspension or termination of a Regulator, section 6 of the Telecommunications and Radiocommunications Regulations Act, 2009 mandates how such suspension or termination action can be implemented and applied by the Minister responsible. The action taken to, first illegally and then actually, suspend me for a period as the Regulator has had a significant deleterious impact – externally and internally. It has signalled, to our regulatory colleagues regionally and internationally and all stakeholders, the telecommunications regulatory regime at-large and people living in Vanuatu, political interference and potential influence on TRR's mandatory operations and decision making. This is the first time in TRR's history that such interference has occurred; being free of political interference has been a key reason Vanuatu has been held in high standing in the region and at an international level, and by operators and licensees in Vanuatu.

Further, Vanuatu's standing and integrity through its regulatory regime and framework, through the Office of the TRR as a continuous exemplary Regulator which is recognized at a regional and international level, and by the World Bank

and Aid Donors, (which is paramount) may have been reduced through that external interference. It is vital that the TRR, at all times, ensures that its standing integrity, independence, as well as its reputation, credibility and image is not undermined.

The TRR Office has extensively assisted, promoted and supported much of Vanuatu's strategic and economic gains. The economic gains provided through an effective, sustainable telecommunications environment and its continual development and evolution contribute substantially to holding and satisfying existing, and attracting more and new, investors into the country. These strategic gains contribute to increase Vanuatu's visibility and the Government's integrity and credibility at an International level and directly lead to attracting more international Government to Government relationships and Donor partners into Vanuatu and the region.

2017 was a year where TRR staff faced substantial external and internal pressures, challenges and demands, particularly during the time when I, as the Regulator, was out of Office for around two months (on illegal suspension). This had a significant impact given the Act does not provide for an Acting Regulator when the Regulator is on suspension and the majority of TRR staff have just over one and half years of experience of essential telecommunications regulatory functions. However, they rose to the occasion and handled and addressed those pressures and challenges as well as they could, performed to their best to

deliver at an expected and required level, and have achieved expected outcomes; so I sincerely thank them for their efforts.

I am, however, happy and proud to say that despite these challenges and the heavy pressures faced, TRR met all of its main deliverables and outcomes expected; as outlined in this Report.

A highlight was the reduction of the International capacity internet bandwidth at a wholesale level which has indirectly benefited consumers in terms of lower prices and promotional offers currently offered by existing operators, TVL, Digicel, Wantok and the others.

Further achievements include:

- The coordination and facilitation of contract agreements between TRR and the Service Providers (TVL and Digicel) to upgrade of all tower sites across Vanuatu to 3G + and providing conducive regulatory environment to support the roll out of 4G/LTE network in the main communities and centres of the main islands of Vanuatu. A predictive population coverage of 98.8% as the outcome of the Government's 2013 UAP Policy targeted of 98% population coverage, which is an outstanding result;
- Delivery of a first sector report produced development of telecommunications sector in Vanuatu;
- Vanuatu's achievement of a 100% broadband coverage across Vanuatu via a satellite provided by Telsat through Kacific through the Government 2013 UAP policy arrangements;
- The continuous use of CLICC sites across Vanuatu which students and surrounding communities continued to enjoy their benefits;

- TRR's effective and appropriate regulatory oversight and support to investors leading to the TVL Service Provider sold by the former TVL owner (Mauritius Telecommunications), being purchased by Amalgamate Telecommunications Holdings (ATH) of Fiji. This again has signaled the benefit of the regulatory regime in Vanuatu that provides incentives for investors to invest in Vanuatu, especially in the critical Telecommunications/ICT industry;

- The continuous Innovative Consumer Awareness and Educational Programs delivered across all provinces of Vanuatu;

- The successful management and administration of the World Bank Grant and amount of USD\$ 2,730,000 granted to the Vanuatu Government and administered by the TRR. The objective of that World Bank Grant was, "to facilitate the transfer of legal, regulatory and technical expertise to support the establishment of fully functional oversight institutions for telecommunications and ICT in Vanuatu, thereby supporting the transition of Vanuatu's telecommunications market from a monopoly to a fully liberalized environment, through the establishment of pro-competitive reform with requisite regulatory oversight, and an improvement in access."

Some excellent news is that the mobile penetration rate continued to increase in 2017. As of December 2017, mobile penetration increased to 87.3% compared to 80.7% in 2016. The mobile penetration rate for Vanuatu of 87.3%, far exceeds the International Telecommunications Unions' (ITU) estimated rate of 70.4% penetration for countries classified as Less-Developed

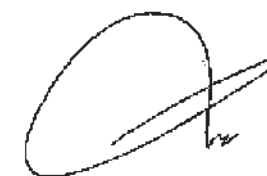
Countries (LDC's); of which Vanuatu is a member.

Mobile Internet Broadband subscription has also grown from 5,000 in 2014 to now around 80,000 subscription in 2017.

Given the achievements that have occurred, I also wish to acknowledge the important contributions provided by all in the industry, as well as their support and respect of the regulatory mandates that TRR has responsibility for under the Act. The telecommunications/ICT industry has invested significantly to further develop and bring Vanuatu to the next level of its growing communications environment. In addition, they have continued to cooperate with TRR and respect its regulatory boundaries and interventions; thus helping the market environment to continue to be attractive, robust, sustainable and competitive.

TRR's will always fulfill its role in ensuring appropriate legislative instruments are developed only where required, licences are granted or revoked as required, effective and appropriate decisions are made and implemented, and continuous monitoring of the industry is undertaken to ensure that a fair, competitive and sustainable market environment for our consumers and citizens of Vanuatu is maintained.

Yours Faithfully,



Dalsie Baniala
Telecommunications and
Radiocommunications Regulator

2017 HAS BEEN A DEMANDING, DIFFICULT AND CHALLENGING YEAR BUT, AT THE SAME TIME, IT HAS BEEN A VERY FULFILLING YEAR FOR TRR, WITH MANY ACHIEVEMENTS AND SOUND OUTCOMES REACHED.

2017 Highlights

1.1 SUCCESSFUL CLOSURE & USE OF WORLD BANK GRANT TO THE VANUATU GOVERNMENT

The World Bank (WB) Grant Agreement, TF014458 with the Vanuatu Government (GOV), under donor funding provided by the Government of Australia through AusAID (Governance for Growth) and administered by the WB, concluded on June 30th 2017. A WB grant review in 2017 placed TRR favourably and gave it a satisfactory rating following its successful management, use and coordination of the grant.

The successful management of the Grant was a result of a cooperative, cohesive and collaborative partnership between TRR, Office of the Government Chief Information Officer (OGCIO) and the Ministry of Finance and Economic Management. This close, but independent, relationship has enabled the successful implementation of the program in delivering its milestones in a timely and qualitative fashion.

The objective of that WB Grant was, “to facilitate the transfer of legal, regulatory and technical expertise to support the establishment of fully functional oversight institutions for telecommunications and ICT in Vanuatu, thereby supporting the transition of Vanuatu’s telecommunications market

from a monopoly to a fully liberalized environment, through the establishment of pro-competitive reform with requisite regulatory oversight, and an improvement in access.”

As at the WB’s project closure date of 30 June 2017, implementation and achievement of the Grant objective was overall met and achieved successfully with TRR staff having gained further support and, importantly, focussed regulatory experiences and capacity building. This has provided for and supported TRR’s institutional development, and for it to be recognized as the leading and benchmark Regulator in the Pacific Region. To learn more about this project, go to part 3 of this report.

1.2 COMPLETION OF THE GOVERNMENTS UNIVERSAL ACCESS POLICY

The Governments Universal Access Policy (UAP) required the operators to rollout and upgrade infrastructure to provide voice, text and narrowband data to 98% of the population by 31 December 2017. A secondary requirement of the UAP was to ensure that broadband data capabilities were available to all government offices, schools and health centres.

Effectively, by that date, both operators had completed the tasks at hand expending over Vatu 1.5 billion to implement 22 new sites and to upgrade all sites to 3G+ technologies as well as implementing 4G technologies in major provincial locations. Computational analysis undertaken by TRR has shown that the predicted coverage provided by both operators infrastructure covers 98.8% of the population of Vanuatu – 0.8% in excess of the Government’s stipulated 98% requirement. This is an outstanding result. Further the availability of High Throughput Satellite (HTS) services provides broadband data coverage across the country.

The rollout of this infrastructure has highlighted the difficulties in ensuring coverage and service to the population via traditional terrestrial means. The high cost of logistics, disputed land ownership and low economic return shows that alternative solutions will be needed into the future. However, the operators, TVL and Digicel must be congratulated for their perseverance in the completion of this activity and to the growth of telecommunications access across the country; which has resulted in an excellent outcome. Go to part 5 of this report to learn more about this project.

1.3 SECOND MOBILE NETWORK SIGNAL AND INTERNET COVERAGE AUDIT

Building on from the first mobile network signal and internet coverage audit in 2016, TRR engaged an independent Network Coverage Auditor who undertook the first coverage audit, conducted a follow up exercise across the country. The follow up exercise was carried out to provide technical mobile radio coverage

and drive testing services to validate the extension of coverage achieved by various networks throughout Vanuatu as per the Government’s 2013 UAP.

The audit exercise and its analysis was conducted independently and included an evaluation of the networks (2G, 3G and 4G/LTE) that are currently (or were) in operation in Vanuatu. The exercise provided a measurable analysis of coverage for both voice and data centric services in terms of the percentage of the population covered. The network

audit and analysis was consistent with “best practice” and were drawn from international defined standards and benchmark levels of performance that defined the constitution of an acceptable quality of coverage; rather than relying on a subjective, and often difficult to qualify user experience. As the outcome of this exercise, the percentage of the UAP population coverage was determined and confirmed respectively to 98.8% for voice and 86.2% for data as reported above.

1.4 TELECOMMUNICATIONS SECTOR REPORT 2017

The TRR has been collecting statistical information from the operators on the revenue, costs and subscribers of various services in the telecommunications sector. Whilst, in the past, this information was included in the TRR Annual Reports, in 2017 the TRR released its first specific Sectoral Report on the telecommunications sector in Vanuatu. The objective of the Sector Report is to provide information to government for policy planning, to operators for strategic planning, investors, to aid donors and other interested stakeholders, accurate and wide ranging telecommunications/ICT data and information on this critical sector for awareness and in order to assist their respective contributions to the development of, and on market value and growth for, the sector.

Highlights of the 2017 Sector Report are:

- A sector with combined revenues of over VT5 billion;
- Mobile penetration rate of over 80%;
- Decreases in wholesale capacity pricing for international egress;
- Decreases in retail data pricing for consumers;
- An increase in the number of retail packages allowing consumers a greater choice; and
- This has led to explosive growth of data use over the year.

The intention of the TRR is to continue to provide a yearly Sector Report with refinement of the statistical framework, as well as consideration of more business information from the various operators. Whilst providing valuable information currently, the TRR expects that over the coming years this Report will become a vital element of, and reference for, policy and industry planning for the telecommunications/ICT sector in Vanuatu. Go to part 6 to learn more about this deliverable.



1.5 DETERMINATION AND DECISION ON PRICE REDUCTION AT WHOLESALE MARKET OF INTERNET CAPACITY

Building on from TRR's 2016 investigations and its outcome, in quarters 2 and 4 respectively of 2017, the TRR released two important Decisions; (i) TRR's third determination of approved pricing for specific leased capacity amount supplied by FCC to particular customers, and (ii) TRR's Decision on ICL's request for approval of ICL's proposed pricing for sale of leased capacity).

(Full document can be downloaded from TRR's website www.trr.vu or visit TRR office)

TRR's decision on ICL's request for approval of ICL's proposed pricing for sale of leased capacity was considered to approve the propose pricing of the Interchange Limited subject to specific assumptions and or financial conditions provided on a basis that the price applies for all leased sales up to a required level of 1200Mbps in total sales, after which prices will be reduced.

On the 2nd of May, 2017, TRR issued its final Determination concerning FCC's request for Approval of Pricing for Several Sales of Leased Cable Capacity. This

is referred to herein as "TRR's first price approval" Determination. The Determination was also accompanied by Order.2 of 2017, specifying the maximum approved pricing for the specified sales of leased capacity by FCC to Digicel, TVL and certain other customers. These are referred to as TRR's prior decisions.

As an overall outcome of the TRR Decision on price reduction, citizens are enjoying 4G /LTE coverage in some main communities in a number of main Islands of Vanuatu, 3G coverage across Vanuatu and very affordable price of promotions offered by all operators. To learn more about this deliverable, go to part 6 and 7 of this report.

III. CONCLUSION ON ICL'S PROPOSED PRICING

80. For the reasons summarised in this Decision, TRR intends to issue a formal Order, to the following effect:

Pursuant to Order No. 8 of 2017:

- (i) ICL's proposed price for leased capacity of \$US285/Mbps/Month is approved for all sales by ICL of leased capacity up to the "required level" of total leased sales as proposed by ICL, being 1200 Mbps.

Signed on 10/11/2017

Dalsie Baniala
Telecommunications and Radiocommunications Regulator



1.6 ITU WORLD TELECOMMUNICATION AND INFORMATION SOCIETY/ ICT DAY & PACIFIC ISLANDS RELATED TRAINING WORKSHOPS AND FORUMS

TRR continues to maintain its support to the Government of Vanuatu through the Office of the Chief Information Officer in the coordination of the celebrations of the World Telecommunication and Information Society Day (WTISD)/ICT day in Port Vila and other main islands of Vanuatu. During the celebrations, mechanisms were provided for respective organisations to showcase their ICT/Telecommunications related products and services. More than 15 organisations displayed their respective services and products. Three of these were international organisations, a service provider, and 2 charitable organisations.

Although the celebrations took place in Port Vila, TRR extended the celebrations to Tanna Island. There was wider representation at the event in Tanna. Many senior Civil Servants at the Provincial Head Quarters were present at the full day program. This included Principal Education Officer (PEO) of Education, representatives from NDMO and Provincial Government, Correctional Services, President of the Tourism Island Bangalow, and a member of the Board of the Transport Association, Tourism Office, a Representative of the Municipality, a Representative of Nikolaten Council of Chiefs, School Principals and Teachers and students, church representations and the general public. Business organisations, such organisations as ANZ Bank (Vanuatu), Tourism Office, Education Office etc., were given the opportunity to display related products and services that they are offering.

During the three days of celebrations, the TRR also hosted Pacific Island related Training Workshops and Forums including Pacific Youth ICT/internet Governance Forum. The training workshops were run back to back and in parallel with the celebrations of the World Telecommunication and Information Society Day (WTISD)/ICT day in Vanuatu.

To learn more about this project, go to part 10 of this report.

L-R: 1. Showing audience listening to opening ceremony at Isangel, Tanna Island. 2. Showing one of the organisations displaying their ICT products and services at Isangel, Tanna Island. 3. Photo taken during one session of the Pacific Internet Governance Forum

1.7 DEVELOPMENT OF .VU OPERATING RULES/ PRINCIPLES

The TRR ensures that in its public consultations stakeholders have a full opportunity to make their views known on issues of importance to them. In respect of .vu ccTLD, and building on previous consultations TRR has undertaken with stakeholders, on the 10th of August, an open, public, face to face consultation held at the Convention Centre, in Port Vila for all interested

stakeholders to attend and provide views and comments on the draft seven principles of the operations of the .vu ccTLD. The drafting and finalization of these principles were part of the enforcement of the Vanuatu Domain Name Management and Administration Regulation Order No.206 of 2016. These rules/principles are now in the process of finalization and it is anticipated that in early 2018, the Guiding Principles and/or Rules will be released. To learn more about this project, go to part 9 of this report.

1.9 “TRR FACTS INFO” A MOBILE APPLICATION RELEASED FOR CONSUMER ACCESS

Building on from TRR's continuous Face to Face Consumer Protection Awareness and Educational programs each year (in many Islands of Vanuatu), and through its Community Consumer Champions across all Provinces of Vanuatu, TRR has now developed a mobile application to enhance its complaint handling processes that it has in place. The mobile app will also assist and enhance a user's knowledge on Telecommunications information and development in Vanuatu.

The application carries information relating to the general operations of TRR and, importantly, Consumer Protection Information that is hoped will assist and guide consumers, in their knowledge and understanding of their rights and responsibilities in the telecommunications sector.

Importantly, the app has a functionality to enable a consumer to lodge an online formal complaint to TRR whenever they have an issue with their service provider; after they have exhausted avenues to resolve the matter directly with their respective service provider.

For more information regarding this project, go to part 10 of this report.



1.8 WORLD CONSUMER RIGHTS DAY 15TH MARCH - “BUILDING A WORLD CONSUMER CAN TRUST”

The Honorable Prime Minister, and Minister responsible for Telecommunications/ICT, made some important consumer related statements in his speech to the audience in the convention Centre, stated that “without the support and willingness of Consumers and Users to continue their constant acquisition and use of the services and products of existing businesses, or their courage and desire to try new services and products, there would be no point in establishing or maintaining a business or an organisation. There would be also no economic benefit to business owners or technical advancement in this country, as well

as a loss of Government revenue and a subsequent reduction in or lack of services provided to the public”.

He continued to say that “The Government, small and large Business owners and operators, Institutions, non-charitable Organisations, and Industry Leaders all fully recognize that, Consumers are the drivers of the economy and make a substantial contribution to its stability and prosperity. This leads to encouraging trade, investment and providing economic opportunities for all members of society throughout Vanuatu”.

More than 300 consumers in Port Vila and Efate Rural, including online participants, participated in the Consumer Rights Day celebration held on the 15th of March, 2017. To learn more about this project and or deliverable, go to part 10 of the report.



About TRR

2.1 OUR ROLE AND FUNCTION

2017 was TRR's 10th year of operations since its establishment in 2008. The main objects of TRR's mandate is to:

- (a) facilitate the development of the telecommunications sector; and
- (b) manage radio-frequency spectrum, in order to promote national social and economic development.

Another important function that TRR is fully engaged on is ensuring that telecommunications and radiocommunications consumers are well protected and that they are not treated unfairly in the market sector.

Other specific core functions, apart from ensuring that the Act is implemented, facilitated and enforced, require TRR to manage and administer a number of important assets and activities. Such assets include: radio spectrum/frequencies, telephone numbers, .vu ccTLD, UAP projects and its trust funds, and radio apparatus that organisations or individuals are operating. Important activities include: monitoring of market behaviour and advertisement of services and products by the service providers, monitoring of terms of services provided by the carriers, interconnection activities, monitoring of quality of services rolled out by the operators, and hosting of important events to bring together expertise to discuss topics that are of need to the citizens of Vanuatu.

TRR has implemented the Government's

2013 UAP policy which set a range of deliverables by December, 2017. As part of its mandatory function TRR provides advice to the Government and assistance with implementation of the Government's National ICT policy.

Whilst the Regulator is employed by, and reports to, the Honourable Prime Minister and Minister responsible for telecommunications/ICT, it is important to note that the Office of the TRR is a statutory body where the Regulator acts and makes decisions independently and impartially from all political influences.

TRR continues to maintain its independent daily operations but works in collaboration with its stakeholders and the Government.

The credibility, reliability, integrity and the effective ongoing positive working relationship that TRR has established with all its stakeholders, both at the national and international level, must be maintained and it is critical and essential for Vanuatu as a whole for the Regulator to be able to, and continue to, act independently and impartially. This also is necessary for TRR in maintaining the recognition it has among its peers as the leading Regulator in the Pacific Region. TRR's wish is to build on that towards being an exemplar Regulator and to continue to hold its status of performance at that level.

TRR is operating in accordance with its Corporate Plan and its Annual Work Plan; both of which can be accessed from its website on www.trr.vu. Information on completed projects, ongoing and current projects, achievements and other associated activities are also available from our website.

2.2 OUR VISION, MISSION AND VALUES

our mission

To develop a competition led market for the provision of innovative information and communications services, available to all, which: **encourages** sustainable and economically efficient investment; **respects** the interests of consumers; **fosters** ecologically friendly initiatives; and **supports** the social, cultural, customs and commercial welfare of the Vanuatu.

To continue to build as an exemplar regulator within the region through thought leadership and to be the employer of choice by: **investing** in our people to develop a professional, passionate team; **transparency** and **fairness** in operations; and **adherence to quality assurance**.

our vision

A communications environment that enriches the social, cultural, customs and commercial fabric of Vanuatu.

our values

Inspiring

Our imagination, clarity of thought and clear leadership stimulates innovative thinking that meets the needs of tomorrow.

Commitment

Our drive and determination to achieve excellence, our discipline in the execution of our duties, our focus on the development of our team, and our sense of responsibility instil passion for the development of Vanuatu.

Respect

Our respect for each other is ensured by listening, collaborating and having consideration for each other, the public and licensees we work for, the rule of law, confidentiality, intellectual property, customs, environment, and future generations.

Balanced

Our evidence based approach to decision making and our adaptability ensure that we remain proportionate, consistent, fair and just.

Transparency

Our open and inclusive approach to regulation ensures that we are held responsible and our actions and decisions are understood.

2.3 OUR TEAM

Each year, TRR staff have undergone team building and training programs. During this year, the TRR team has reviewed the effectiveness of the TRR team norms and pledges, as these have guided their performance and ways of undertaking TRR activities throughout the year.

TRR 2017 TEAM NORMS:

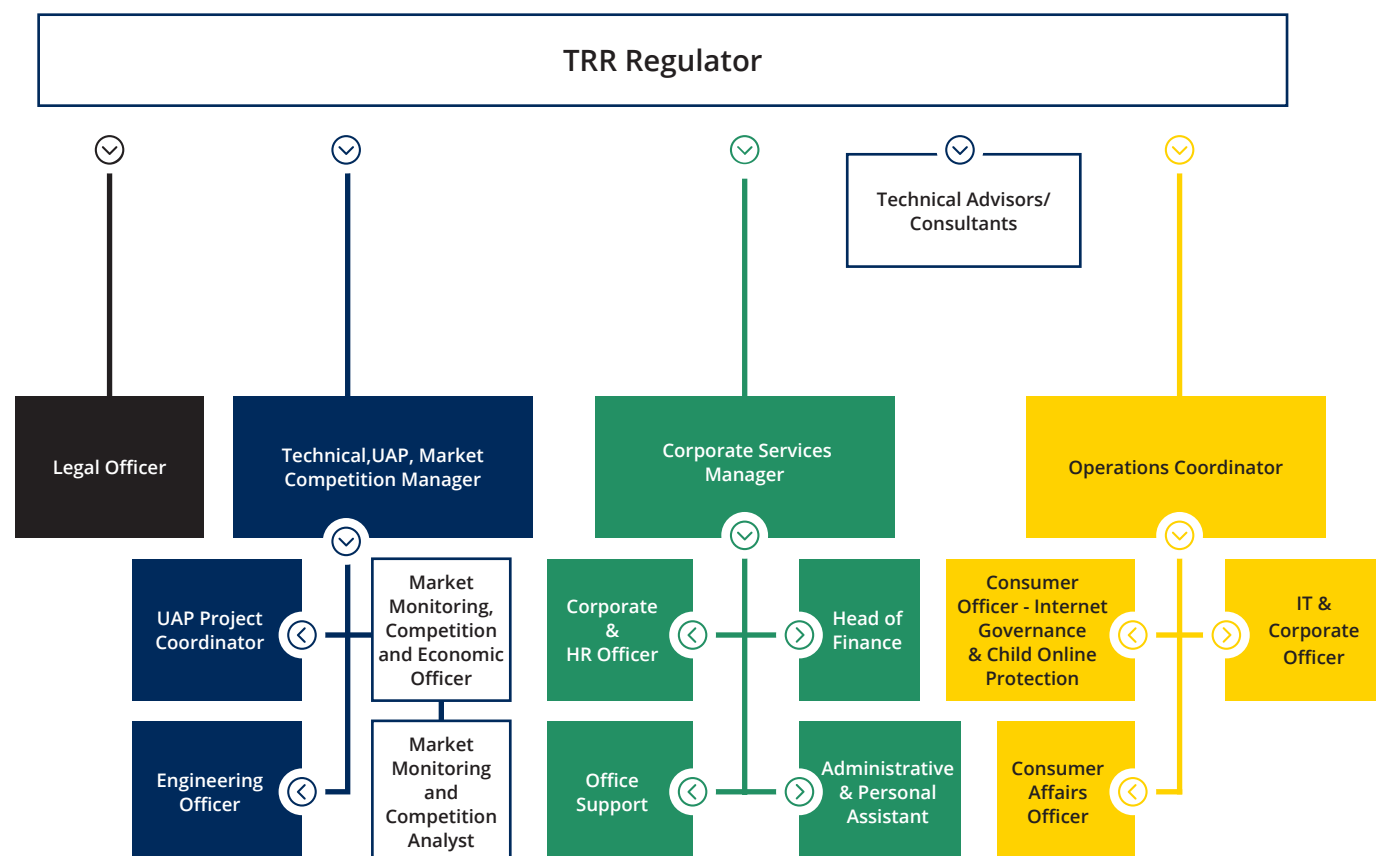
1. Be proactive
2. Respect each other
3. Co-operate and help each other
4. Be resilient and adapt to new challenges
5. Believe in yourself
6. Be an engaged team member
7. Be responsive (to all stakeholders and staff)
8. Don't be afraid to be wrong – give it a go!

TRR TEAM PLEDGES:

We pledge to:

1. Be considerate and trust each other;
2. Be a committed and active team player;
3. Support our Leaders and each other in achieving outcomes;
4. Be loyal and respectful; and
5. Have open, honest dialogue.

As a team, TRR has done its best towards these Team Norms and Team Pledges and has delivered as reported on in this Annual Report.



2.4 TRR'S 2017 AND ONWARDS WORK PLAN AND PRIORITY DELIVERABLES

TRR continues to develop an Annual Work Plan. The 2017 and Onwards Work Plan (see www.trr.vu) guides and sets out TRR's priority deliverables and work focus for the year. For 2017, TRR had 21 priority projects and 14 other lower priorities that set the direction and focus of our performance throughout this year. Along with this Work Plan, TRR also has a variety of ongoing internal projects that support, facilitate and complement the core annual priority projects listed in the Plan. The Annual Work Plan is updated and modified, as necessary, throughout each year.

Some of the key priority projects are ongoing projects which will be continued in 2018.

Key activities for 2017 are reported below; see pages 24 to the end of the report.

2.5 TRR'S KEY ACTIVITIES

Towards the end of each year, TRR reviews its current work and identifies its required work program for the following year. The key projects identified for the year 2017 were outlined in its 2017 Work Plan, which can be accessed on its website.

TRR's top priority programs/issues/tasks for the year 2017 were:

UNIVERSAL ACCESS POLICY

1. Implementation of the Government's UAP undertakings with operators concerned
2. Monitoring and Evaluation of Government's ICT initiatives for schools under the CLICC and TFS Programs
3. Implementation of the Government's ICT initiatives for schools under the CLICC and TFS programs Pilot extension

MARKET & COMPETITION

4. Improve the affordability of internet access in accordance with the GOV's UAP initiatives
5. Review Tariff Filing frameworks and procedures
6. Develop a Telecommunications Sectorial Report

ENGINEERING AND TECHNICAL COMPLIANCE

1. Develop a Quality of Service (QoS) legal instrument
2. Develop a Quality of Service monitoring framework
3. Undertake a second Mobile Network Signal and Internet Coverage Audit

INTERNET GOVERNANCE

1. Implementation and monitoring of .vu ccTLD Regulation
2. Develop Rules in conjunction with the implementation of a .vu ccTLD Management and Administration Regulation
3. Implementing Child Online Protection (COP) Program

LEGAL

1. Review of the TRR Act 2009

CONSUMER AFFAIRS

1. Improve effectiveness of TRR's Community Consumer Champions program
2. Develop and expand TRR's regulatory telecommunications/ICT consumer surveys
3. Establish National recognition and celebration of World Consumer Day – March 15
4. Support and promote Vanuatu's National ICT day Celebration, May 17, of the ITU's World Telecommunications and Information Society Day
5. Bridging the digital knowledge gap by effective engagement of telecommunications/ICT users
6. Increase consumer Knowledge and awareness of market product and information

CORPORATE

1. Effectively sourcing funds and promote sound corporate Governance to cater for TRR's Financial Self-Sustainability
2. Investigate and implement methods to transfer TRR customer services into e-service

2.6 TRAINING & CAPACITY BUILDING

Given global pressures and rapidly evolving technology that TRR, the Vanuatu Government, the service providers and the citizens of Vanuatu are experiencing each day, the challenges to be faced are not for Vanuatu alone, and relate to all countries of the world. A challenge for TRR is to have the appropriate experience, capacity and knowledge to handle all of the issues that all stakeholders will or are facing. Hence, TRR fully understands the need for it to take action and undertake annual training and capacity building at all levels. As such, each year, TRR staff undertake specific and related training, and capacity building workshops.

Training and capacity building of TRR staff is essential for TRR to develop a strong, experienced and committed team, able to face the ever-increasing pressures and challenges placed on the organization through telecommunications/ICT evolution, provision and take-up.

TRR's commitment to this activity remained high priority in 2017 given majority of its current staff are, essentially, new to telecommunications activities and essential regulatory functions.

Training/workshop/conferences that specific TRR staff attended in 2017 included:

(I) SPECTRUM MANAGEMENT

Management of spectrum in the sector is a mandatory responsibility of TRR and it is important that the contributing factors are well understood and administered by TRR. For example, whether there is enough specific spectrum range

available for a new entrant to roll out a mobile service, to ensure there is no interference, to ensure the spectrum is available for other services such as TV white space, marine and or air activities, 5G development, when required. Given that, the TRR technical team attended related training, such as, the ITU SMS4DC Database System Training, Spectrum Harmonization, and other high level spectrum related meetings.

(II) ENHANCEMENT OF SUBMARINE CABLE IN THE PACIFIC

TRR addressed a number of issues related to submarine cable operations in Vanuatu. This year, towards the end of the year, there was a breakthrough for consumers to have access to 4G/LTE network in the main areas of the main Islands of Vanuatu, and also 3G+ across Vanuatu. This has occurred partly through work undertaken by the TRR in investigating the wholesale price regime and making its appropriate decisions. TRR's work on this has led to capacity building and knowledge of regulatory management of submarine cable matters; including an understanding of the business case for a laying a submarine cable. TRR staff have undertaken trainings and attended workshops in this area to broaden their understanding and knowledge; particularly on cost modelling and projections of demands, and submarine cable investment.

(III) REGULATORY IMPACT ANALYSIS

In undertaking its tasks and making decisions, TRR must consider the regulatory impact of what it is proposing to do or undertake. To assist that understanding and awareness, TRR staff attended a Regulatory Impact Assessment Workshop and training. The training provided staff with assessment of a range of the different methods that

are applicable, costs and benefits to be evaluated, and provided a range of tools including cost benefit analysis, impact analysis and cost effectiveness analysis.

(IV) E-COMMERCE TRAINING

TRR through its staff attended the WTO-PIFS-UNCTAD regional workshop on E-commerce held in Nadi, Fiji. The theme of the Workshop was 'Promoting E-Commerce in the Pacific – Recent Development Policies and Laws'. The objectives of the Workshop were to update participants from the region on recent developments in E-commerce, including the state of play in WTO discussions on E-commerce, and identify appropriate policies and laws that could promote the development of domestic and trans-border E-commerce in goods and services throughout the region. Through this Workshop participants gained a better understanding of E-commerce and its utility as a tool for development in the Pacific Island Countries and the region.

(V) TRAINING RELATED TO BROADBAND DEVELOPMENT

The UAP Project Coordinator attended the Commonwealth Broadband Forum, held in Apia, Samoa. TRR through its staff responsible was involved in two panel discussions and gave a presentation on the impact of broadband policy and regulations within a Vanuatu context, and also on the Implementation of the Government's UAP in Vanuatu. The play or pay approach implementation of the UAP was highlighted as a unique and very successful approach which could be adopted in the Pacific. During the 3 day Forum areas including the development of national broadband strategies and relevant technologies were examined, with a focus on applications and data.



WTO/UNCTAD/PIFS REGIONAL WORKSHOP ON E-COMMERCE
"PROMOTING E-COMMERCE IN THE PACIFIC – RECENT DEVELOPMENTS, POLICIES AND LAWS"
 20 – 22 JUNE 2017
 SHERATON FIJI RESORT, DENARAU ISLAND, NADI, FIJI.

WORLD TRADE ORGANIZATION
 PACIFIC ISLANDS FORUM SECRETARIAT
 UNITED NATIONS UNCTAD

Group photo from WTO-PIFS-UNCTAD regional workshop on E-commerce held in Nadi, Fiji

(VI) SOFT SKILLS UPGRADE FOR ALL TRR STAFF

TRR continued to provide soft skill training to its team members. An example included the Administrative Assistant and Personal Assistant Officer attending training for Executive Assistants (EA)/ Personal Assistants (PA) Advanced Skills, and training on Protocol Diplomacy; focussing on roles of Executive Assistants and Personal Assistants, importance of customer satisfaction,, teamwork, active listening and interpersonal skills, managing stress, time management, giving and receiving compliments, and practising assertiveness. This training and has enhanced the knowledge base and skills of the attendees.

(VII) INTERNET GOVERNANCE

Given TRR's function with internet related activities on .vu country code Top Level Domain names, training in this specialised subject is necessary. A number of TRR staff attended training on Internet Protocol, re-delegation of ccTLD registry, Domain Name security and other related internet Governance matters. This training was available through fellowships and ICANN training, APNIC, APriGF, and

APT training and meetings. Vanuatu was also able to make presentations on specific topics at these trainings/events.

(VIII) CYBERSECURITY RELATED TRAINING

TRR's I.T Officer attended Watch Guard training which provided capacity building and tools to best utilize and manage TRR's firewall and to enable the TRR office network to be secured and protected against security threats and risks such as hackers, Denial-of-Service Attacks, ransomware, and other forms of attack.

TRR's responsible staff also attended the 8th Asia Pacific Telecommunity (APT) Cybersecurity Forum (CSF-8), held from 24 to 26 October 2017 in Dhaka, Bangladesh. The Internet Governance Officer represented TRR in this meeting and presented a paper on "Cyber Security/Other Cyber Affairs with Vanuatu's Experience" which included:

- Internet Market overview (Main ICT/Telecommunications At Glance Market Indicators)
- Existing National Cybersecurity Activities
- A Way Forward Approach

Key considerations at the forum that are useful to TRR and Vanuatu were: Roundtable on data driven society and cybersecurity, Members' initiatives in cybersecurity, Industry initiatives in cybersecurity, Internet of Things (IoT), Big data, cloud and its security, Spotlight: "Who is the Owner of Data? Data protection and big Data marketing, Cross-border data flow and effective International cooperation and Collaboration.

In addition to the specific training/events listed above, TRR staff also attended, and represented Vanuatu/TRR at ITU, APT, PITA and PIRRC meetings. These kinds of conferences and forums have contributed to awareness and individual exposure at a high/Regulator's level. For example, the Consumer Affairs Officer and the Economist Analyst had the opportunity to attend this year's ITU Regulator's Round Table. That Meeting focussed on the experiences of telecommunications/ ICT Regulators and policy-makers in Asia Pacific countries. The sharing of challenges, knowledge and way forward helps all member countries, particularly developing countries such as Vanuatu, to gain insights and leverage their day to day delivery in the midst of increasingly converged smart digital societies, as well as providing telecommunication/ ICT regulators in the region with a platform that fosters dynamic and strategic discussions, sharing of information, relevant experiences and practices, to facilitate debate on possible solutions, and opportunities for potential collaboration to address emerging regulatory issues and challenges in Asia Pacific region.

Each TRR staff is provided with the opportunity to undertake related training to assist and compliment what they are currently working on within TRR. Importantly, the knowledge and understanding they gain from these training areas is valuable and necessary to assist understanding and achievement of TRR deliverables.

End of World Bank Financial Support and Donor Funds through the Government of Australia

3.1 WORLD BANK (WB) TECHNICAL ASSISTANCE TO THE TRR INSTITUTION AND STAFF

The WB Grant Agreement, TF014458, with the Vanuatu Government (GOV), under donor funding provided by the Government of Australia through AusAID (Governance for Growth) and administered by the WB, concluded on June 30th 2017. A WB grant review in 2017 placed TRR favourably and indicated a satisfactory rating (the best that can be achieved) following its successful management and coordination of the Grant.

The successful management and implementation of the program was a result of a cooperative, cohesive and collaborative partnership between TRR, OGCI0 and the Ministry of Finance and Economic Management. This close, but independent, relationship has enabled the successful implementation of the program in delivering its outcomes and achieving its milestones in a timely, appropriate and qualitative fashion.

The objective of that World Bank Grant was, “to facilitate the transfer of legal, regulatory and technical expertise to support the establishment of fully functional oversight institutions for telecommunications and ICT in Vanuatu, thereby supporting the transition of

Vanuatu’s telecommunications market from a monopoly to a fully liberalized environment, through the establishment of pro-competitive reform with requisite regulatory oversight, and an improvement in access.”

As at the WB’s project closure date of 30 June 2017, implementation and achievement of the Grant objective was primarily fully met and achieved successfully with TRR staff having gained further support and, importantly, focussed regulatory experiences and capacity building. This provided for and supported TRR’s institutional development, and for it to be recognized as the leading Regulator in the Pacific Region.

The project has also facilitated the advancement of outreach of telecommunications service provision, telecommunications regulatory services, GOV online services and institutional oversight; including evidential increase in telecommunications services and access across Vanuatu.

Vanuatu is highly recognized in the Pacific region in respect of its regulatory (TRR) and institutional (OGCI0) oversight of Telecommunications/ICT market and framework, and its development towards ICT inclusion for all of its citizens; including E-GOV online. TRR is seen and recognised as an exemplary and benchmark Regulator in the Region, and the

OGCI0 model has received praise from many; including Pacific Island peers. This, undoubtedly, excellent outcome could not have occurred without, and has been greatly facilitated by, strong Government support and policy development, and the much appreciated donor funding provided by the Government of Australia through AusAID (Governance for Growth); as administered by the World Bank (WB).

TRR’s goal to continue to build on its strengths and boost its telecommunications and radiocommunications regulatory capacity by invigorating its pool of core technical and professional staff who have now gained further experience and expertise. Whilst the potential staff of TRR has not yet been fully achieved, it has been considerably strengthened and advanced through this Grant. TRR recognizes and appreciates the value of this capacity building assistance.

TRR developed a Closure Report which summarized the achievements and advancements made.

This Grant was, originally, expected to conclude on 30 June 2016, but was extended by one year to end of June 2017 after TRR discussion with, and with the agreement of, the Government of Vanuatu and the WB. Below is a brief of what managed and expended.

Description	US\$
Total Grant TF014458	2,730,000
Funds Disbursed to TRR	2,730,000
Less: Actual funds spent	(2,629,097)
Funds balance returned	100,903
Unused/Cancelled	100,903

The Closure Report was delivered, as expected by the World Bank and the Government, in October, 2017. The unused portion was decidedly low in comparison to other Countries experiences. An unused portion is a ‘normal’ expectation of any Grant recipient, due to a range of factors including operational arrangements.

3.2 AUSTRALIAN AID FUNDS THROUGH GOVERNANCE FOR GROWTH PROGRAM

Under a formal arrangement between the Government of Australia, the Government of Vanuatu and the TRR, TRR has received financial support from the GfG, its Director and his team, in respect of implementation of the Government’s UAP and TRR’s widened initiatives and stimulatory programs.

TRR has also received other forms of support from GfG over the years, and it recognizes, greatly appreciates and thanks GfG for its contribution to TRR and the highly important (to all sectors) telecommunications/ICT sector.

Through this reporting period, TRR wishes to acknowledge the Government of Australia, through GfG’s financial support enabling TRR to recruit a firm to undertake the Monitoring and Evaluation exercise for the Computer Laboratory and

Internet Community Centres (CLICC) sites. A report of this exercise is expected to be reported on in first or second quarter of 2018.

The strong partnership that TRR has with the Government of Australia, through the GfG team, signals the positive and cooperative working relationship and valued support that has been developed towards the achievement of key TRR regulatory areas and required outcomes.

TRR acknowledges this valuable partnership with the GfG team, the World Bank and the AusAid/ GfG program. TRR, particularly, recognizes and appreciates their support and confidence in TRR in administering the (additional) Grant that was provided for the monitoring and evaluation exercise that was necessary for TRR to evaluate the Government’s UAP required deliverables.

TRR has established and maintains regular face to face meetings with the Director GfG.

TRR's Working Relationship with the Government

4.1 GENERAL SUPPORT AND UPDATE REPORTING

In addition to having an effective regulatory working relationship with industry and stakeholders, TRR has worked hard, over many years, to build a collaborative and effective working approach and relationship with the Government, it's Ministries and Departments and the OGCI0, in providing technical advice and guidance on regulatory and policy issues.

Importantly, TRR has also worked hard, over many years, to maintain its independence – as provided for under the Act and to enable it to operate and regulate the telecommunications/ICT sector fairly, effectively and appropriately - and continues to work independently of these entities making its own, independent and balanced decisions.

Since TRR is an effective and competent Regulatory body, with empirical evidence to back up that view, the ongoing independence of TRR, free of any external interference in decision making, is a critical and essential need for it to operate and regulate fairly, effectively and impartially, and for it to continue to drive and maintain sustainable market competition in Vanuatu; and also, importantly, to keep the state of market competition environment sustainable, attractive, healthy and orderly at all times.

2017 has been a demanding, difficult and challenging year for TRR in maintaining its collaborative relationship with

the Government, through respective institutions such as the OGCI0 and the Office of the Prime Minister, given the interference it has experienced; i.e. an illegal attempt to suspend, as well as a period of suspension of the Regulator. (This action is subject to a Court challenge and, to date, the Court has found in favour of the TRR). Despite these challenges the TRR and its team has continued to work professionally and has used its best efforts to maintain a collaborative working approach and positive working relationship with the Government Ministries and Departments it has worked with throughout the year.

2017 was also a year where TRR staff faced substantial external and internal pressures, challenges and demands, particularly during the time when the Regulator was out of Office for more than two months (on illegal suspension). This had a significant impact given the Act does not provide for an Acting Regulator and the majority of TRR staff have just over one and half years of experience of essential telecommunications regulatory functions. However, they have handled and addressed those pressures and challenges as well as they could, performed to their best to deliver at an expected and required level, and have achieved expected outcomes.

Through a range of TRR Staff, as well as the Regulator, the TRR has worked with the Ministry of Education, Ministry of Climate Changes and Natural Disaster, Ministry of Health, Ministry of Trades, Ministry of Infrastructure and Public Utilities through Ports and Harbor,

Ministry of Lands and Lands Department, Ministry of Finance through the Customs and Inland Revenue, Ministry of Foreign Affairs and the Office of the Prime Minister, providing technical advice and guidance on regulatory and policy issues.

4.2 WORKING WITH THE MINISTRY OF TRADES

In 2017, TRR has engaged some of its time and effort on a number of activities that the Ministry of Trades had organised. This includes activities on the drafting of Telecommunications/ICT industry report as part of Trade's reporting on trade and market competition development in Vanuatu, contributing on filling out survey questions which were circulated to its stakeholders including TRR, attending the Government's National Trade Development Committee (NTDC) meetings - which take place every quarter of the year. Importantly, TRR has been one of the stakeholders the Ministry of Trades has engaged to consult and obtain views on market competition policies and, importantly, consumer protection overall.

Building on from 2016's engagement on being the member of the Advisory Committee to the NTDC, TRR has effectively engaged in the Trades meetings and other events when requested. TRR's participation in this Sector is important and provides for input to trade considerations; given TRR's core function and experience in monitoring of market competition and consumer protection in the telecommunications and radiocommunications Sector.

TRR continues to support and contribute to Vanuatu's trade development and, especially, to facilitate and promote appropriate market competition and consumer protection activities across all sectors in Vanuatu.

4.3 TRR'S COLLABORATION WITH THE OFFICE OF THE MINISTER RESPONSIBLE FOR TELECOMMUNICATIONS/ICT

TRR continued to work professionally and has used its best efforts to maintain a collaborative working approach and positive working relationship with the Office of the Prime Minister, the Minister responsible for Telecommunications and the Office of the Government Chief Information Officer (OGCIO).

TRR reports, and provides support, to the Office of the Prime Minister, Minister responsible for Telecommunications; largely through OGCI0. TRR had meetings with the Minister responsible on a quarterly basis to update him on telecommunications development and, at the same time, provide progressive updates on the regulatory work undertaken by TRR that it wished to bring to his attention.

By having these meetings with the Hon. Prime Minister, TRR is also fulfilling section 7 (2) of the Act, which provides for TRR to advise the Minister on matters related to policies, making of regulations and such matters that the Minister may request, e.g. the issues regarding submarine cable, issues on land dispute in the rural areas outside Efate where tower sites are, issues on the latest development of technology giving pressure on the Government to consider; eg. impact of the Over the Top Services, issues on network coverage and, importantly, issues related to the implementation of the UAP and the Cybersecurity Policy.

TRR also provided substantial support and assistance to the OGCI0 in respect of events and a range of advice. This particularly includes on the celebration of the National ICT Days, updates on implementation of the UAP and cybersecurity activities, Emergency

Telecommunications meetings and a range of other matters.

Despite the strong support and assistance provided by TRR to the respective Offices (the OGCI0 and the Office of the Prime Minister), TRR also experienced harsh and substantial pressure from the Prime Minister and the Chief Information Officer towards the end of 2017. The TRR was immediately suspended on the 19th of October, but, on the 25th of the month, reinstated given the immediate suspension was illegal and was then placed on notice of suspension. Within 28 days of notice of suspension, the TRR was later suspended for two months. The TRR then, applied for Interlocutory injunction and is expected to hear the outcome of its application early in, 2018.

4.4 CONSUMER RIGHTS DAY – 15 MARCH EACH YEAR

March 15, each year, is commemorated throughout the World as International Consumer Rights Day. The theme for 2017 was "Building a Digital World Consumers can Trust". Vanuatu joins other 240 international Consumer members in 120 countries to celebrate the world Consumer Rights Day. More than 300 consumers join the parade from Vatumauri Bay to the Convention Centre. The parade was led by the Honourable Prime Minister, the Deputy Police Commissioner and the Telecommunications Regulator.

During the Hon. Prime Minister's speech, he made a call to audience, those attended the event during that time and including those listening and following through online streaming that "it is paramount for all Business Owners and operators, whether large or small, Institutions and Government Organisations, including non-Government Organisations providing goods and services to Consumers as their customers

to fully appreciate, recognize and ensure that the services and or products they provide:

- Are genuine and of a high quality and reliability;
- Contribute to and provide for satisfaction, need and use of Consumers and Users;
- Contribute to enabling a safe, comfortable and healthy environment.

He also continued to emphasize that it is also critical for all business owners and operators, and all involved in Consumer and User transactional systems and arrangements, to recognize and appreciate, and fully understand, that Consumers and Users of goods and services have "rights"; and this applies to all products and services in each respective industry".

As an outcome of the event, it is also fulfilling to read about the Government's direction through the Ministry of Trades making a public statement on a Daily Post article of March 18, 2017 stating that a team has been established to perform drafting of competition policy and establishment of Consumer Affairs Council and ratification of the International Convention on Consumer Protection.

In partnership, the TRR thanks the OGCI0, URA and other stakeholders in putting together a successful program.

4.5 COMPLETION OF THE IMPLEMENTATION OF THE UNIVERSAL ACCESS POLICY (UAP)

By end of December, 2017, TRR had successfully delivered on all aspects in respect of the Government's UAP. A detailed report on this project is reported in part 5 of this report.

Universal Access to Serve the Unserved and Underserved Communities of Vanuatu

5.1 GENERAL

TRR continued to actively manage and deliver on the implementation of the Government's UAP; particularly under the Pay or Play approach and the Computer Laboratory and Internet Community Centres (CLICC) and Tablet for Students (TFS) programs. TRR develops and provides regular update reporting on UAP implementation progress.

TRR provided its Eighth Update Report to the Government, through the Prime Minister and Minister responsible for telecommunications/ICT, during 2017, highlighting the significant progress that was made during the year in respect of the UAP implementation; in particular, the completion of all CLICC and TFS sites under the community grant programs. The final Internet Cafe Senta (ICS) on Ambrym has been completed with

internet services installed and there are now three such sites in operation across Vanuatu.

Although the reports to Minister are in confidence to the Government only, TRR also develops a six-monthly public UAP Update Report that is distributed to key stakeholders and is made available on the TRR's website.

The reports outline the significant milestones that have occurred and enabled TRR and the Government to make some very important progressive steps towards meeting the UAP objectives. Key outcomes include:

- Continued progression of the UAP Undertaking of new sites by the industry players with expectations of over 20 new UAP sites operational by end of December 2017.
- Continued monitoring and evaluation

of the UAP Undertakings program.

- Completion of refresher training to all CLICC and TFS sites.
- Awarded grant funding for the monitoring and evaluation of the CLICC and TFS programs from a pedagogy, curriculum and community development perspective.
- Completion of coverage modelling both predictive and physical to confirm coverage obligations under the UAP undertaking agreements.
- Continued assistance to various Ministries such as the Ministry of Education, Health, Agriculture, and NDMO providing expert advice and support to enable more effective use of the CLICC.

These are significant milestones of the multitude of steps required in the development and implementation of the UAP and the facilitation of ICT across Vanuatu towards its full implementation.

coverage by 1 January 2018. TRR and the Government see this as a clear indication of the Player's support and commitment towards the Government's UAP and its implementation.

In June 2015, the TRR entered into an agreement with Telecom Vanuatu Limited (TVL) and Digicel (Vanuatu) Limited (Digicel) to undertake the UAP rollout which would see each operator forgo payment of the Universal Access Levy. Both TVL and Digicel agreed and commenced planning for twenty one (21) new tower locations across the country

and the upgrade of the network to support 3G technologies. As at December 2017, a total of twenty three (22) towers were agreed upon for implementation with 20 new towers completed and operational. Over 95% of the networks had been upgraded to 3G with 4G services released in Port Vila, Luganville, Tanna, Malekula and Pentecost.

In ensuring that the Players met the 98% population coverage, the TRR engaged SAT Pty, a specialist Radio Communications Consultancy firm, to undertake a predictive coverage analysis.

This analysis took data from previous spectrum and radio infrastructure audits, UAP site information, existing commercial site information, Vanuatu terrain maps and in field coverage measurements to model the anticipated coverage against population. The analysis of the predictive coverage audit has confirmed that 98.8% of the population of Vanuatu has the ability to access mobile voice and narrowband data services. This is an outstanding result with an increase in required coverage of 0.8%.

The implementation of the UAP has not been without its challenges. There have been a number of issues, such as land disputes, theft, threats of violence and monetary demands that have delayed progress for the operators.

Financially, the UAP rollout has seen TVL and Digicel invest over 1.5 billion vatu into the project. Whilst the majority of this investment is in tower, mobile and network infrastructure, there was also significant direct investment into local logistics, materials and labor requirements.

5.3 COMPUTER LABORATORIES AND INTERNET COMMUNITY CENTRES (CLICC)

The CLICCs have continued to meet and exceed the original program objectives throughout 2017. The CLICCs were established with a primary objective to increase the knowledge and use of ICT within the school environment, integrate ICT into the curriculum and utilize educational materials for learning. It has been witnessed by a number of the CLICC centers that the use of the CLICC has impacted student learning in a beneficial way as well as enhancing the delivery of learning. In an interview conducted by UAP staff with representatives of the CLICC Centers, teachers have expressed



Figure 1: Sarakata CLICC Center Coordinator and IT Teacher

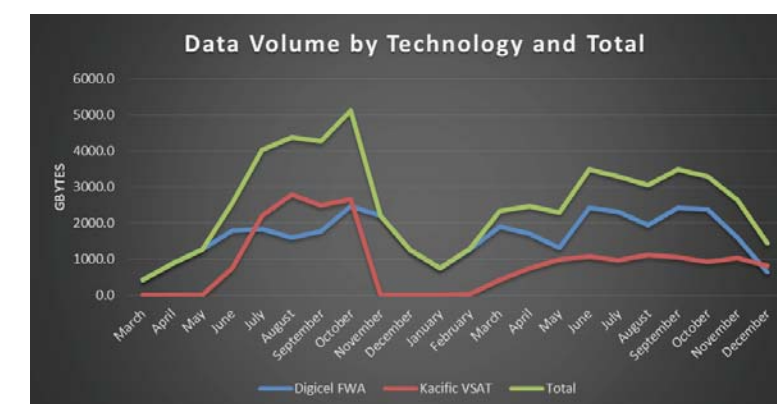


Figure 2: CLICC/TFS Data Volumes from March 2016 – December 2017

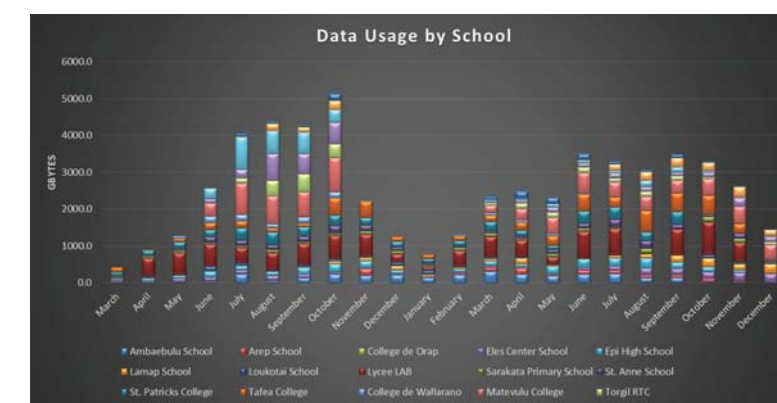


Figure 3: Showing Data Usage by Schools from March 2016 – December 2017

their satisfaction on how the facility has contributed to the improvement of student learning and the delivery mode of educational material. Both teachers and students have expressed the efficiency

of obtaining information and most importantly having the opportunity of accessing up-to-date information and being informed on national, regional and global happenings.

Likewise, the surrounding communities within the CLICC Centers have similarly express their gratitude of having such a facility within their area. Some community members have indicated through interviews with UAP staff that the facility has enabled them to broaden their knowledge through online courses and being exposed to national and global happenings. Another important benefit is being able to stay connected with families and friends from near and far.

However, based on observation, the community uptake of the facility to provide benefits to local business operations is still a challenge. Factors that may contribute, include: a lack of understanding in using devices and the lack of availability of e-services. The TRR has been in contact with the CLICC centers to offer basic ICT training to the communities.

Monitoring of the data volume has been ongoing since the implementation of the CLICC sites, and this is shown in Figure 1. The graph shows a large spike in usage at the beginning of the program which is consistent with students and the community becoming acquainted with access to the internet. The longer-term trend is also upward, with more data used each month, particularly within the school period. The noticeable fall off towards November and December 2017 is due to early closure of schools due to the South Pacific Mini Games.

5.4 TABLETS FOR STUDENTS

The Tablet for Students (TFS) program has benefited both students and teachers due predominantly to the mobility that tablets offer the teachers allowing the teacher to deliver the material where the situation permits. Speaking to some of the students about the use of Tablets, most responded that they use the tablet to capture picture to enable the creation of local content and to watch educational documentaries.



Figure 4: Opening of the Ituani Community Senta, Malekula Site

The educational resources stored in the tablets are beneficial to students learning, in particularly to year one and two students. However, despite the benefits of the tablets, its major challenges is that tablets can be easily removed or misplaced or taken without notice, which results in missing tablets. TRR UAP team has been working with the school administration to put measures in place to effectively monitor the movement of the tablet.

5.5 INTERNET CAFÉ' SENTA

All Internet Café' Senta (ICSs) have been completed and are operating. Of the three sites in operation, Ituani Informesen & Communikesen Senta, Malo has been so successful that a second ICS was opened

in Solwol Village, Atchin in North East Malekula. Whilst, Nali ICS on Ambrym and Tukuanaumauria ICS on Nguna Island are strategically coping with the challenges of Business Operations in the rural community

The primary object of the ICS is to provide internet access to the general communities. Ituani, as an example, not only providing ICT services to the communities, but it is also providing basic ICT training. ICT knowledge is one of the major challenges that is contributing to lack of ICT usage in the Community. People lack the understanding of how to use basic computing, operate certain devices or use the internet. This type of training will boost the uptake of Telecommunications and ICT Services in the rural communities.



Figure 5: Refresher training at Lambubu and Sarakata CLICC Centre

This shows that an entrepreneurial spirit, an appropriate approach to business and access to ICT services and infrastructure can lead to success in rural Vanuatu and bring further benefits to the community.

5.6 REFRESHER TRAINING ACTIVITIES

With the CLICC Program heading to its closure, the TRR has been looking at approaches to ensure the sustainability of the facilities, when its financial commitment ends on 31 December, 2017. Technical maintenance of the CLICC and TFS facility remains a major challenge on the sustainability of the facilities.

Considering this, a technical refresher training was organized for all 19 CLICC and TFS sites during the two week school holiday break in August 2017. The training covered the technical aspects of the facility and in particularly understanding the UAP technical network in which the CLICC and TFS operate within. The training was hosted at 4 locations; Santo, Ambae, Malekula and Efate. The purpose of extending the venue to more than one sites is to provide the opportunity for other community based ICT entrepreneurs to attend, in order to assist with the technical maintenance of the CLICC and TFS facilities.

The participants were satisfied with the outcome of the training and have requested similar training in the future.

5.7 MONITORING AND EVALUATION (M&E)

Monitoring and Evaluation of the CLICC and TFS Program is a critical component of the project, particularly now that the financial commitment has concluded. With the Financial support from the Government of Australia through the Governance for Growth Program (GFG), TRR is in the process of engaging a consultant to undertake a Monitoring and Evaluation of the CLICC Program.

The primary purpose of the M&E includes:

- Evaluate and identify the benefits arising from the increased use of ICT by students, teachers and school's administrators, including to the support and in the course of the educational process;
- Evaluate and identify the benefits arising from the use of ICT by residents and businesses, including enhancing their day to day social and business activities;
- Identify future strategies that can be implemented from an educational and community perspective to increase the use of ICT and improve the sustainability of the identified benefits.

Telecommunications Market Competition and Monitoring



6.1 GENERAL MARKET STATISTICS, MONITORING & DEVELOPMENTS

Many telecommunications markets in Vanuatu continued to show signs of positive growth in 2017. However, the most significant changes observed by TRR were in the markets for the supply of internet services; particularly over mobile networks.

Vanuatu's total utilised bandwidth on Interchange Limited ICN1 submarine cable increased dramatically as a result of increased consumer demand and regulatory intervention in the market for wholesale international internet

bandwidth - which imposed lower unit prices on wholesale suppliers Fidelity Communications Corporation (FCC) and Interchange Limited and stimulated increased uptake from retail service providers.

The market for mobile data continued to grow strongly with significant increases in download traffic volumes as well as sustained strong revenue growth. Most notably, there was a tremendous increase in the volume of download traffic incurred by mobile users in 2017 with total downloads increasing by 143% to 663 million megabytes over 2016 levels. This growth appears to have been further galvanized by the introduction of 4G/LTE services by TVL and Digicel in November 2017 which coincided with dramatic

increases in traffic downloaded by mobile data customers. End-of-quarter monthly total market downloads increased by 162% from quarter 3 to quarter 4 of 2017 demonstrating the massive spike in usage as a result of these newly launched services.

Another factor which is likely to have contributed to the increased use of mobile data in 2017 is the falling cost of data enabled handsets, and particularly those that support 4G. The cheapest available 4G handset from one of the two mobile providers has fallen from about VT 8900 in August 2016 to VT 5750 in December 2017. Many smartphone purchases now also come with additional free data for a limited period in order to incentivize increased uptake of data services by users.

6.2 MARKET STATISTICS, MONITORING & DEVELOPMENTS

6.2.1 MOBILE SUBSCRIPTIONS

Mobile subscriber growth remained strong in 2017 with a year-on-year increase of 8% from December 2016 to December 2017. This has resulted in a mobile penetration rate for Vanuatu of 87.3% - far exceeding the International Telecommunications Unions' (ITU) estimated rate of 70.4% penetration for countries classified as Less-Developed Countries (LDC's); of which Vanuatu is a member. This level of mobile penetration also appears to indicate that Vanuatu is a leader in the region; only falling below nations such as Fiji and French Polynesia and, likely, New Caledonia amongst Pacific Island countries.

Fixed telephony continued its expected slow decline with a 3% drop in fixed subscribers; also leading to declines in fixed call traffic and revenues. To stymie these trends fixed telephony providers have sought to introduce more fixed service bundles by either providing bundles monthly minutes and free-call periods or by packaging fixed telephony with other services such as fixed internet or mobile plans.

6.2.2 FIXED PHONE-LINE SUBSCRIPTIONS

The ongoing improvements in the speed and quality of mobile data services is also creating ready substitutes for existing fixed (wired or wireless) internet services by enabling consumers to connect to the internet using a mobile device and then using this device as a Wi-Fi "hotspot" to connect other devices in their home; such as laptops, tablets and other mobile devices. This type of arrangement allows users to minimise their initial investment - by avoiding upfront installation costs for routers or cabling - and allows for the flexibility and cost savings of being able to share a single internet package for both their mobile and domestic use.

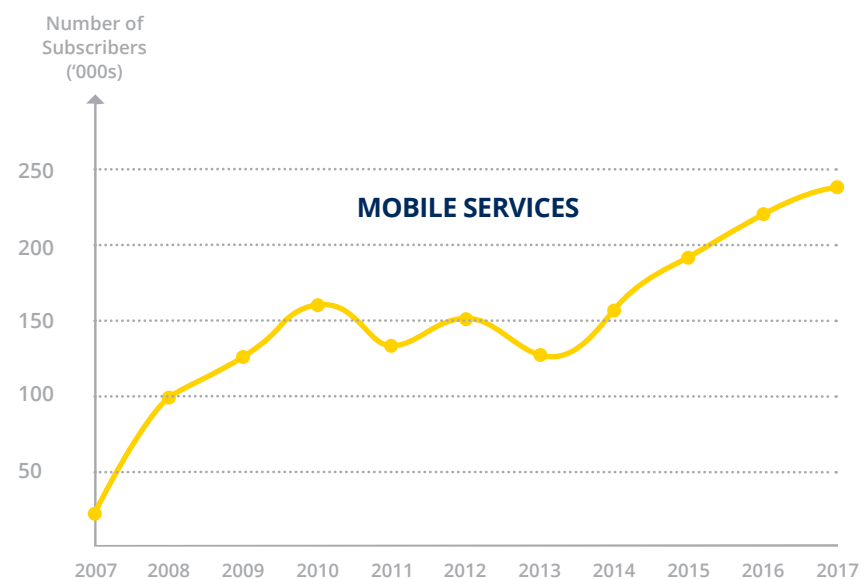


Figure 6: Vanuatu Mobile Subscribers

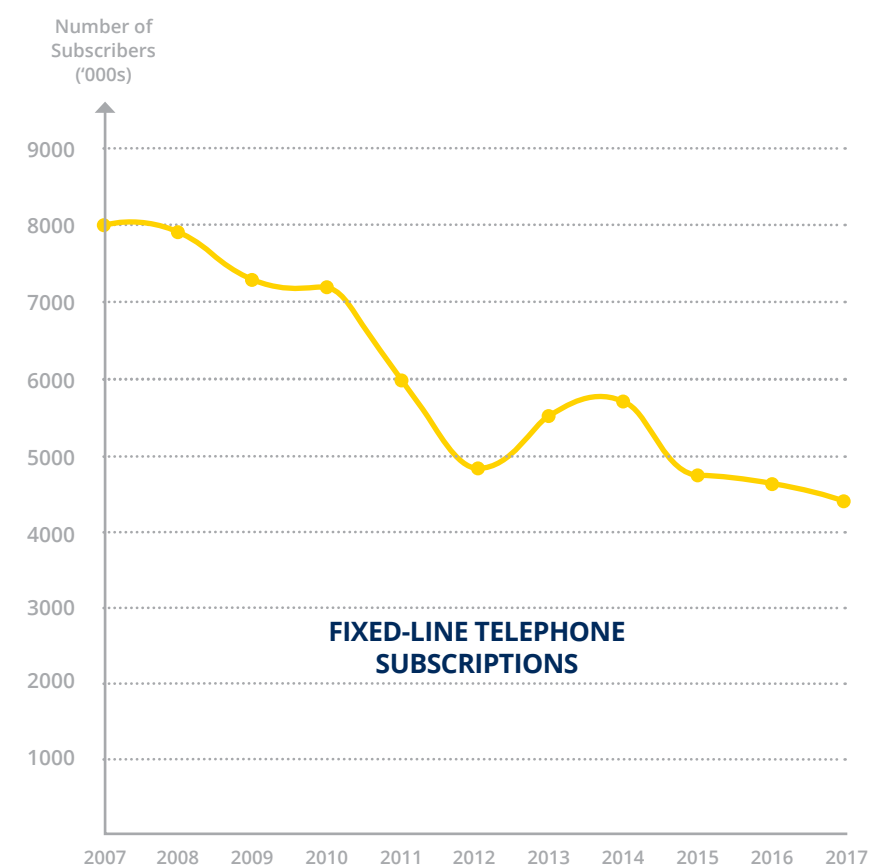


Figure 7a: Fixed Line Subscribers

The substitutability of mobile data services for fixed internet services is an indication of the technological convergence, where two previously separate types of technology evolve to meet the same demand. Convergence has had a disruptive effect on telecommunications and broadcasting industries around the world as consumers move to take up the new innovative services, causing existing suppliers to have to adapt the services that they provide to consumers and opening up new business models and opportunities for new competitors. Examples of this can already be seen in Vanuatu, as several service providers offer customers additional bundled or add-on services to their standard internet plans including media and content services.

Increased technological convergence has put greater pressures on telecommunications service providers to expand the range of services available to consumers in order to maintain their market position and revenues. This pressure on revenues can stimulate greater efficiencies, as service providers seek more cost-effective ways of providing services, and allow them to compete more effectively on the price available to consumers.

As the technologies and networks converge this also leaves service providers with limited ways to differentiate their services from those of their competitors and leading them to seek to include more add-on services to their service offering. It also will lead them to seek to increase the scale of their operations to gain the scale efficiencies of having both a large customer pool and reduced unit procurement costs for large quantities of inputs.

The current rapid increase in the use of mobile data in Vanuatu has led to significant differences in the relative scale of mobile internet service providers as compared to those only supplying fixed wired/wireless internet services. These

increasing scale efficiencies have allowed mobile service providers to continue to regularly decrease retail data pricing even though wholesale charges had been static for several years - before TRR's interventions to reduce wholesale internet charges in 2017.

Such a process can be, and generally is, beneficial to consumers, as they benefit from cheaper pricing. However, it can cause significant pressures on smaller service providers and lead to market exit or consolidation with other service providers. This certainly appears to have been the case with Global Pacific Telecom, which was acquired by Wantok in early 2017. However, it could also be expected that the larger combined company would have more resources and skills to be applied to improve and expand services provided to customers and so making them more competitive.

TRR's collection of telecommunications

licence fees provides it with a value for the Gross Revenues for telecommunications services collected by each of the Licenced Service Providers during the year. In 2017 the total market gross revenues increased significantly from 2016 levels from VT 4,479,794,173 to VT 5,380,033,172.

This represents a 20% increase on the gross revenues declared for 2016 and is almost entirely driven by growth in mobile services; with enormous growth in mobile data revenues as well as significant growth for all other mobile services, whether prepaid or post-paid, including domestic calls and SMS and international call revenues.

Fixed internet services, including fixed wired and wireless services, experienced relatively more moderate increases in revenues whereas fixed telephony services generally experienced moderate declines in 2017.

6.2.3 GROSS REVENUES

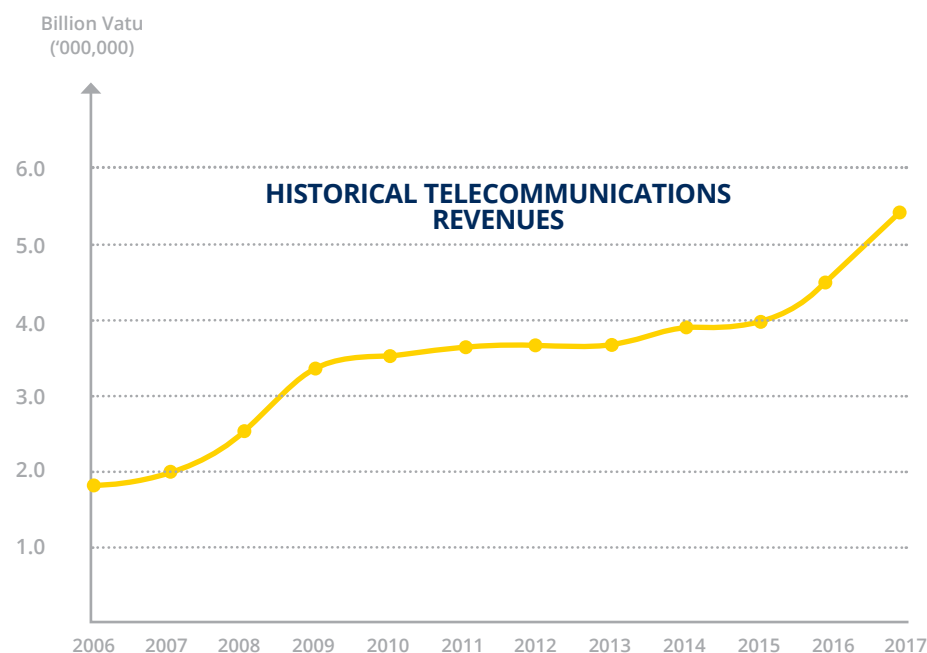


Figure 7b: Vanuatu Telecommunications Market Revenues

6.3

TRR DETERMINATION AND FINDINGS ON WHOLESALE INTERNET SERVICES MARKET

In October 2016 TRR consulted with the telecommunications industry as to appropriate remedies and regulatory actions to address certain issues of concern in the wholesale market for international internet services, specifically with regards to the pricing charged by FCC.

In February 2017, and as a result of inputs to TRR's consultation, TRR determined that there were still concerns as to FCC's pricing of wholesale international internet capacity and imposed an Order, No.1 of 2017, on FCC to seek prior approval from TRR for the price, and other terms, for any additional sales of capacity for a period of 12 months. This approach was taken to ensure that any ongoing sales by FCC were in accordance with the TRR Act, and particularly that it's pricing is cost-based.

On 3 May 2017, and in line with TRR's findings in its February 2017 Determination, TRR released Order No. 2 of 2017 which provided maximum prices which FCC could charge for specific sales of leased wholesale internet capacity to its customers.

In September 2017 ICL sought approval from TRR for the price and other terms for wholesale international internet capacity on the ICN1 submarine cable.

This approval was sought under TRR's Order No. 3 of 2016, the relevant parts of which were subsequently been extended, by Order No. 8 of 2017.

On 10 November 2017 TRR released its determination on ICL's request for approval of pricing for the supply of wholesale international internet bandwidth. TRR's determination approved ICL's request for a lease rate of US\$285 per Megabits per second (Mbps) per month up to a total capacity sold of 1200 Mbps, after which TRR expects the pricing to be reviewed and likely reduced downwards.

In making that decision, TRR notes that the Interchange Submarine Cable is a long-term infrastructure asset with an estimated useable life of 20 to 25 years or perhaps more, according to the Interchange documentation. This asset had high-upfront establishment costs, such that significant returns are not necessarily expected or required in the early years. Instead, it is a common and accepted practice for pricing and returns for such long-term telecommunications infrastructure to be analysed over the long-term (usually the life of the asset), rather than the early years or for only a brief period of one or a few years. Also, due to ICL's largest cost being fixed and incurred at the start, as increasing volumes of capacity are sold, unit costs and pricing can be expected to decrease. Such decreases can still allow substantial returns in the later years, and in the overall period of the investment.

6.4 MOBILE DATA TRAFFIC IN THE LAST TWELVE MONTHS

Mobile data download traffic continued to increase on a month-on-month basis, as shown in the graph below; figure 8, this resulted in an increased total annual downloads of 223% in 2017 over 2016 rate. The increased data usage also translated into a 141% increase in mobile data traffic revenues experienced by the two mobile service providers.

The range and value of mobile data packages has again improved in 2017. In part due to the decrease in wholesale international internet costs as a result of TRR's wholesale pricing regulation interventions. This price reduction at the wholesale level also contributed to stimulate the increased data usage seen towards the end of 2017. The significant increase towards the end of 2017 was also contributed by the introduction of 4G+ services by both TVL and Digicel, and the completion of upgrades of respective networks to support 3G across the country.

A number of new promotional offers, which were released at that time and especially towards the end of the year (end of quarter 3 and whole of quarter 4) also contributed to the significant increase. The data bundle prices for both prepaid and post-paid packages have continued to fall with the cheapest available in terms of average price for a day bundle from 50vt/MB to 0.25vt/MB in 2017. The graph below, Figure 9, shows the downward trend in terms of mobile data average pricing.

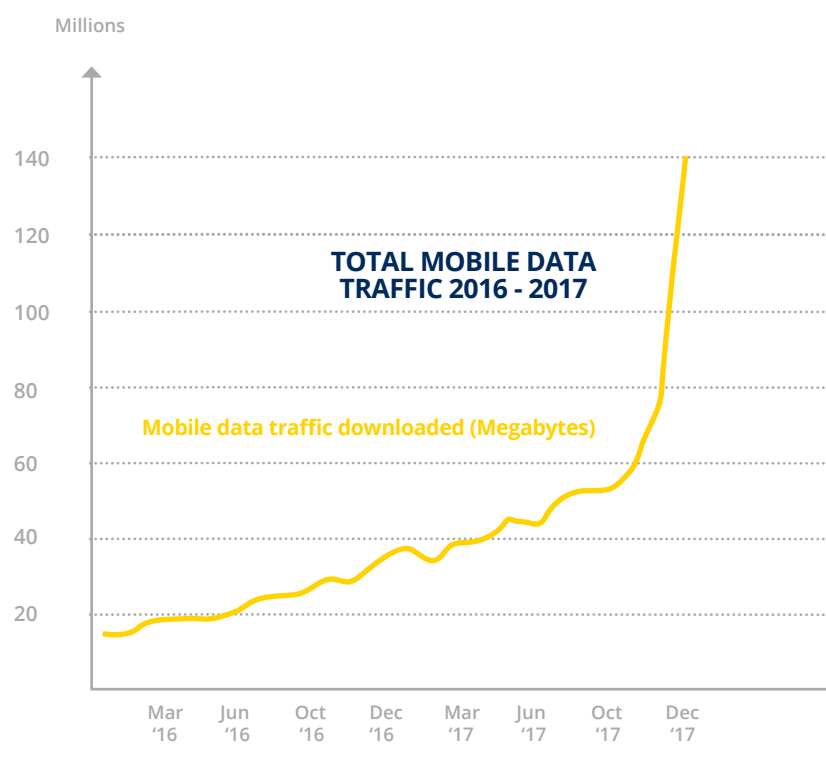


Figure 8: graph showing mobile data traffic of downloads in 2016 to 2017

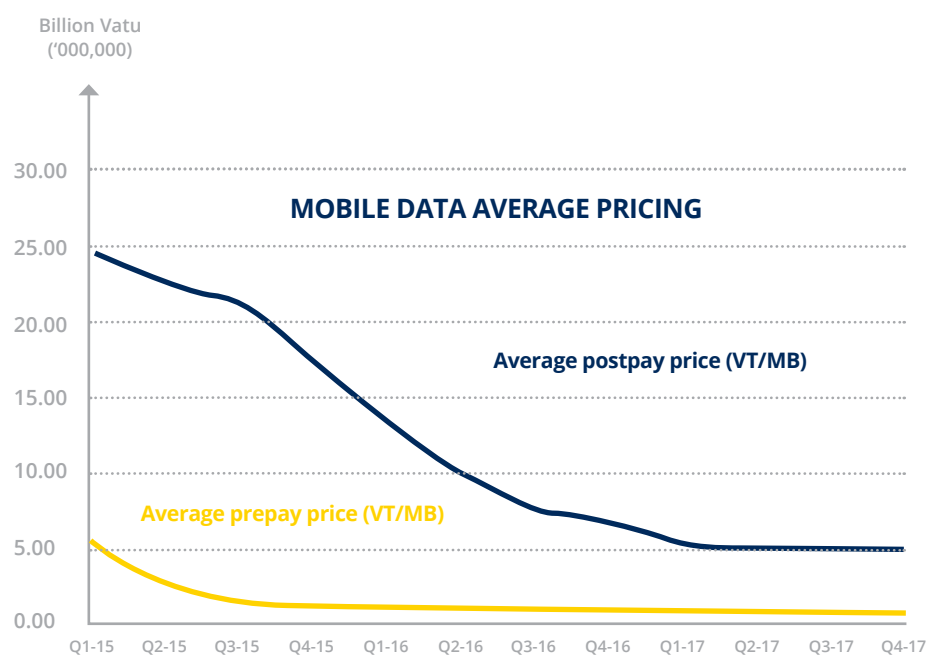


Figure 9: graph showing mobile data pricing

6.5 INTERCONNECTION

In late 2016 Wantok Networks Limited (Wantok) requested formal interconnection with both Digicel and TVL in order to provide voice services to Vanuatu. During the course of 2017, Wantok formally requested TRR to assist in the interconnection negotiations with Digicel due to the slow progress of these negotiations. TRR assisted in a number of discussions between Digicel and Wantok with respect to interconnection, licences and indemnities. By the end of 2017 Wantok and Digicel were negotiating commercial terms as part of the interconnect process.

In Late 2017 Wantok formally requested TRR to assist in the interconnect negotiations with TVL due to the slow progress of these negotiations. As of December 2017 these negotiations were still continuing.

Regulatory Legal Activities

7.1 MATERIAL LITIGATION

7.1.1 INTERCHANGE VS. TRR'S JUDICIAL REVIEW NO. 2941 OF 2016

As outlined in section 6.3 Interchange Limited (ICL) challenged TRR's findings in its June 2016 Determination and Findings Relating to the Wholesale International

Internet Services Market and Speedcast's Complaint Against Interchange Limited and Order No.3 of 2016. The hearing of the case continued to be postponed and at the same time, an opportunity was also provided for the ICL and the TRR to settle outside of court. It is expected that the case be heard in 2018 and/or potentially, settlement organized where all parties may be able to be agreed to.

7.1.2 FORMER TRR STAFF VS. TRR, CIVIL CASE NO. 3053 OF 2016

There was no opportunity for the Civil Case No. 3053 be heard by the Court in 2017. However, it is anticipated that the case will be heard in 2018. There is a high chance that the case be struck off given its nature and receipt of reasons presented on the Amended Defence and Cross –Claims filed in May 2017.

7.2 TRR 2017 DETERMINATIONS AND DECISIONS

Pursuant to TRR's general functions and powers under the Act, TRR released a number of Determinations and Decisions throughout 2017; whereby:

- Decisions mean any decision of the Regulator including any decision of any kind to do or not to do anything in relation to which the Regulator is empowered by the TRR Act; and
- Determinations refer to the outcome of TRR investigations including findings, assessments and decisions made including decisions through orders where and when required.

The majority of these Determinations and Decisions relate to the TRR investigations carried out in 2016 relating to the Wholesale International Internet Services

Market and Speedcast's Complaint

Against Interchange Limited (ICL). Some Determinations and Decisions released show content redacted information due to the confidential and commercially sensitive nature of some of the information contained within.

These Decisions and Determinations are as listed below:

7.2.1 REGULATORY DETERMINATIONS RELEASE

During the year, TRR released a number of Determinations. These Determinations need to be read in conjunction with Order No.2 of 2017, which enforces various matters in relation to TRR's findings and can be found on this link: <https://www.trr.vu/en/public-register/determinations/determinations/2017-determination>.

On 2 May 2017, the Determination on TRR's findings relating to Fidelity Communications Corporation's (FCC)

request for approval of pricing for several sales of leased submarine cable capacity, as required under Order 1 of 2017, was released. This Determination needs to be read in conjunction with Order No.2 of 2017 which enforces various matters in relation to TRR's findings.

On 4 July 2017, a second Determination accompanying Order No. 7 of 2017 was released detailing TRR's findings relating to FCC's second request for approval of pricing for several sales of leased submarine cable capacity, as required under Order No. 1 of 2017.

Also, this second Determination was made following on from 'TRR's Final Determination Concerning FCC's Requests for Approval of Pricing for Several Leased Cable Capacity, which accompanied 'Order No. 2 of 2017', and incorporated and refers to analysis and findings in these documents in determining and approving pricing for these specific sales of capacity to Digicel and TVL on the ICN1 submarine cable.

On 3 August 2017, the third Determination was released containing TRR's findings relating to Fidelity Communications Corporation's ("FCC") third request for approval of pricing for the proposed sales of leased submarine cable capacity to the Government of Vanuatu, as required under Order No. 1 of 2017.

And, on 9 August 2017, the fourth Determination was released containing TRR's findings relating to Fidelity Communications Corporation's ("FCC") fourth request for approval of pricing for several sales of leased submarine cable capacity, as required under Order No. 1 of 2017. This Fourth Determination was made following on from TRR's three prior Determinations concerning FCC's requests for approval of pricing and incorporates and relies on analysis and findings in these documents in determining and approving pricing for this specific sale of additional capacity to Digicel on the ICN1 submarine cable.

7.2.2 REGULATORY DECISIONS RELEASED

On 29 May 2017, TRR issued its 1st Decision relating to the extension of the provisions of paragraphs 3 & 4 of Order No.3 of 2016 for a limited period of 90 days. This Decisions is related to the wholesale International Internet Capacity by ICL and it was released alongside Order No. 5 of 2017 which

enforces this Decision. To learn more about this Decision, see the following link https://www.trr.vu/attachments/article/631/trr_decision_to_extend_paragraphs_3_and_4_of_order_no_3_of_2016.pdf.

On the 20th of June 2017, TRR released its 2nd Decision (Decision 2) accompanying Order No.6 of 2017. That Decision related to TRR's findings in respect of Digicel's request for internal review of TRR's Decision released from a request by Wantok Networks for interconnection services from Digicel.

On 4 July 2017, TRR issued its 3rd Decision on FCC's request for reconsideration, as prescribed under Section 52 of the Act, of TRR's Order No.2 of 2017 (Order 2) and TRR's Final Determination Concerning FCC's Requests For Approval Of Pricing For Several Sales Of Leased Submarine Cable Capacity.

In reconsidering matters raised in Order 2 of 2017, TRR did not find sufficient reason to vary or revoke its original decisions and they continue to be in force and unchanged.

Some information contained in this Decision has been redacted to protect the confidentiality of one or more of the parties involved. This link: https://www.trr.vu/attachments/article/644/trr_internal_review_decision_for_fcc_price_approval_redacted_version.pdf provides more information about the TRR Decision.

ICN1 submarine cable for a period of 12 months.

Order 2 was released on the 3rd of May, relates to the approval of pricing for specific sales of wholesale international internet bandwidth by FCC. Order 2 is based on the findings and reasons in 'TRR's Final Determination Concerning FCC's Requests for Approval of Pricing for Several Sales of Leased Capacity' of 2 May 2017 and was made pursuant to Order 1 of 2017 that required FCC to seek TRR approval for pricing for any further sales of capacity. This link: <https://www.trr.vu/en/public-register/orders/2017/order-2-of-2017>, provides information about Order 2.

TRR's Decision 4, issued on 31 August 2017, related to the further extension of the provisions of paragraphs 3 & 4 of Order No. 3 of 2016 until 31 December 2017. This Decision was released alongside Order No. 8 of 2017 which enforced that Decision and followed on from TRR's Decision to extend paragraphs 3 & 4 of Order No. 3 of 2017 (Decision 1 of 2017) and accompanying Order 5 of 2017.

Released on 10 November 2017, Decision No. 5 provided TRR's findings and reasons on ICL's request for approval of pricing, and other terms, for wholesale international leased internet capacity on the ICN1 submarine cable between Port Vila, Vanuatu, and Suva, in Fiji. That approval was made pursuant to TRR's Order No.8 of 2017, which requires ICL to seek prior approval from TRR for the price and other terms of supply of international capacity.

TRR approved ICL's proposed price for leased capacity of \$US285/Mbps/Month for all sales by ICL of leased capacity up to the "required level" of total leased sales as proposed by ICL, being 1200 Mbps. For more information on this Decision, see this link https://www.trr.vu/attachments/article/672/20171110_redacted_trr_decision_on_icl_request_for_approval_of_icl_proposed_pricing_for_sale_of_leased_capacity.pdf.

register/orders/2017/order-2-of-2017, provides information about Order 2.

Signed on 15 May 2017, Order 3, required FCC to provide specific documents and information to TRR relating to its supply of international wholesale internet capacity services. This link: <https://www.trr.vu/en/public-register/orders/2017/order-3-of-2017>, will take you to the document.

On 24 May 2017, TRR issued Order No.4 of 2017, requiring ICL to supply specific documents and information to TRR.

On 29 May 2017, TRR issued Order No.5 of 2017 based on the findings of TRR's Decision to Extend Paragraphs 3 & 4 of Order No. 3 of 2016.

On 20 June 2017, TRR issued Order No.6 of 2017 relating to Digicel's request for internal review by TRR of its Decision relating to Interconnection negotiations with Wantok Networks.

On 4 July 2017, TRR issued Order No.7 of 2017, approving pricing for specific sales of wholesale international internet bandwidth by FCC to Digicel and TVL. Order 7 is based on the findings and reasons in 'TRR's Second Determination of Approved Prices for Specific Leased Capacity Amounts Supplied by FCC to Particular Customers' of 4 July 2017 and was made pursuant to Order 1 of 2017 that required FCC to seek TRR approval for pricing for any further sales of capacity.

On 31 August 2017, TRR issued Order No.8 of 2017, based on the findings of TRR's Second Decision to extend paragraphs 3 & 4 of Order No. 3 of 2016 and followed on from TRR's Decision to extend paragraphs 3 & 4 of Order No. 3 of 2017 (TRR's Decision 1 of 2017) and accompanying Order 5 of 2017 to further extend certain provisions of TRR's 2016 Order 3, relating to ICL for a further 90 day period.

7.4 TRR REGULATORY INSTRUMENTS

In 2017, TRR did not issue or release any Regulatory Instruments. However, TRR has worked collaboratively with the affected stakeholders working towards finalizing the .Vu principles which are part of the .Vu Domain Name Management and Administration Regulation Order No. 206 of 2016.

A draft of TRR's Type Approval and Conformity to Standard Regulation was issued for public comment and consulted on. TRR is in the process of seeking approval from the Minister responsible for his approval before it is presented to the SLO for gazetal.

7.5 HARMONIZATION OF THE TRR ACT NO. 30 OF 2009

TRR undertook consultation with specific stakeholders on potential harmonization of the TRR Act with existing legislation and rules. This exercise was carried out aiming to find out whether there was any overlapping of existing legislation with the TRR Act and, if necessary to consider appropriate mechanisms to address these potential overlaps.

TRR developed two categories of the relevant existing legislation. Category one – the Anti-money laundering and Counter Terrorisms Financing Act No. 13 of 2014, Business Names Act, Copyright and Related Rights Act, Customs Act, E-Business Act and Trade Mark Act, whereby there was likely to be no overlap. The second category of the legislation – Broadcasting and Television Act, Civil Aviation Act, Maritime Act and Shipping Act provided for more likely potential overlap.

As an outcome of the review, the listed legislation in Category one were found to contain no immediate ties of the listed legislation with the TRR Act.

The legislation listed in Category 2 were identified as having some links with the TRR Act. That link was with respect to the use of radio equipment and radio management. TRR is considering what the next steps may be.

7.6 REVIEW OF THE TRR ACT

The review of the TRR Act has been approved by the Minister responsible since 2016 for consideration of what parts may need to be amended, if any, based on TRR's experience. TRR has undertaken consultations since then, through a one to one consultations then, to public consultations, including consultations with the existing licensees. The series of consultations were completed and reports of the consultations finalized and uploaded on TRR's website. The consultations and outcomes were also reported to the Minister responsible.

As an outcome of the consultation, the Minister responsible requested TRR to conduct another round of consultations with the same stakeholders, as well as a widened consultation expressing his concern that the TRR may be seen as proposing amendments increasing the power of the Regulator allowing it to impose sanctions (proposed in the amendment) which may, somehow, be indirectly borne by consumers.

TRR responded to the concerns of the Minister responsible and clarified its position that TRR was not intending to achieve such outcomes with its proposed amendments. The process was then placed on hold given the Office of the Prime Minister, through the Minister responsible for telecommunications/ICT, included these allegations as a part of rationale for suspending the Regulator. TRR will continue with the process next year, around mid 2018 with the aim of completing the amendment by end of 2018.

Telecommunications and Radiocommunications Technical and Engineering

8.1 NATIONAL NUMBERING MANAGEMENT PLAN AND PROCEDURES

TRR's National Numbering Management Plan and Procedures (NNMPP) is an important legal instrument to assist TRR in the appropriate and effective management of telephone numbers that are held by TRR as a national resource. Following a request and TRR's evaluation of that request from a licenced operator, TRR then allocates numbers, in blocks, to licenced operators that it determines as appropriate for the required use.

Review and updating of the NNMPP, to make it appropriate for both current and future technologies, and provide effective guidance and industry compliance, is a continual activity for TRR and, thus, it is always included in the TRR Annual Work Plan. Whilst TRR recognizes that this is an important matter, TRR has, appropriately, set it at a lesser level than other high priority projects given the NNMPP is, overall, understood and being implemented and utilised appropriately.

TRR continues to closely monitor compliance with the NNMPP and the effectiveness of the rules that are currently in place.

8.2 RADIO SPECTRUM MANAGEMENT

8.2.1 GENERAL

Radio Spectrum is a natural and highly valuable national resource, and is vital for provision and widening of the range of telecommunications services in Vanuatu; particularly in reaching all segments of its population over vast and difficult terrain and topography. It has always been and is now an ever-increasing essential element for communications. As such, it is a key function for TRR to manage effectively and efficiently and this forms a high priority matter for TRR.

8.2.2 ALLOCATION OF THE SPECTRUM

The change of ownership of TVL saw TVL commence the upgrade of their network to support 3G across Vanuatu, as per the UAP agreement, and the implementation of 4G technologies. At the same time Digicel has also been upgrading their network to support 3G and 4G as per the UAP agreement.

In December 2017 TRR assigned the then remaining 1800 MHz available spectrum (35MHz in the upper band and 35MHz in the lower band) to both TVL and Digicel to support the ongoing development of their respective networks. In doing so, the 1800Mhz spectrum allocation for International Mobile Telecommunications (IMT) in Vanuatu has now been exhausted.

This being the case TRR, in ensuring adequate bandwidth is available for network development, has now started investigating other frequencies that can be made available to the operators for IMT services. This includes the 2100MHz and the 2300MHz frequency bands. TRR sees that the implementation and utilisation of this spectrum will provide benefit and enhanced services to the people of Vanuatu.

8.2.3 SPECTRUM MANAGEMENT SYSTEM FOR DEVELOPING COUNTRIES (SMS4DC)

Historically, spectrum has been managed by the continuous updating of excel spreadsheets. That method is now not practical or efficient and a database management of spectrum is the best approach. Under a project managed by the Pacific ICT Regulatory Resource Centre (PIRRC) and assisted by the ITU, TRR's technical team has started transferring TRR's excel database system to the ITU Spectrum Management 4 Developing Countries (SMS4DC) database system. This solution will provide a much better and more appropriate structure for spectrum management, as well as TRR's invoicing for all spectrum and apparatus types. It will also ensure accurate records meaning that any spectrum allocated is free of interference.

The SMS4DC implementation is being undertaken across the Pacific, with the TRR team in Vanuatu being a centre of excellence for the pacific region.

8.2.4 NATIONAL FREQUENCY ALLOCATION TABLE (NFAT)

The NFAT was reviewed during the year as standard practice within TRR. However, with the implementation of SMS4DC and the forthcoming World Radio Congress in 2019 (WRC19), there is a need to now reevaluate and update the NFAT to ensure that the use of spectrum in Vanuatu is optimal and that any changes that come out of WRC19 can be easily implemented. This will occur in 2018 and onwards.

8.2.5 SPECTRUM MONITORING AND INTERFERENCE RESOLUTION

An important result of TRR's audit activity is that it has enhanced closer working and cooperation with operators on resolution of interference issues. In that respect, this year TRR has been required to respond to a number of complaints on instances of interference. In all cases these interference issues were resolved amicably due to TRR's intervention.

8.2.6 TV WHITE SPACE

A Licenced Operator has made a request to TRR to trial TV White Space (TVWS) technology in Vanuatu. A report was made to TRR for its consideration and TRR has requested further information from the operator. Other licensed operators have been made aware of such plans and have responded positively.

8.3 RADIO SPECTRUM AND RADIO APPARATUS LICENSING

8.3.1 SPECTRUM FEES

Following Decision 1 of 2016, TRR introduced spectrum licence fees commencing on the 1st of January 2017. This included all spectrum issued subsequent to the liberalisation of the telecommunications market and the spectrum issued to both TVL and Digicel as part of their licences. Implementation of these fees has proven successful.

During 2017 TRR continued to receive a number of enquiries and applications for additional spectrum from licensed operators. In total, two (2) spectrum licences were issued. Both licences were issued for additional 3G frequencies to support the increased penetration of 3G data under the UAP.

8.3.2 RADIO APPARATUS LICENCES

It is mandatory in Vanuatu for all radio apparatus operators to hold a valid apparatus licence to operate their radio apparatus equipment; as required in the Act and TRR's legislative instruments. In this respect, to obtain an apparatus licence each year under the Act, an administrative fee must be paid to TRR to assess and approve an appropriate licence.

Sixty six (66) new radio apparatus licences were issued in 2017. Such licenses were issued in the following categories; Marine (12), Aeronautical (3), VSAT (4), Broadcasting (2), Land Mobile (41) and Amateur (4).

TRR continued to work on fixed link apparatus licensing which comes into force in 2018 as determined in Decision 2 2014. Fixed links are essentially point to point or point to multipoint network connections supplied via radio technologies. These links provide additional network reach for operators and generally operate within either licensed or high value spectrum bands. Historically, information on these links has been scant; however, with the spectrum audit and recent testing of mobile networks information collected by TRR on these links, our information increased significantly. TRR intends to ensure compliance in this band and will actively monitor this band; now, and into the future.

8.3.3 REVISION OF RADIO APPARATUS LICENCE FEES

TRR made Decision 1 of 2015 reflecting changes to Radio Apparatus Licence fees. As part of this decision a review of the fees was to be undertaken in 2017 to determine if radio apparatus licence fees should be modified. TRR undertook an internal review and concluded that, due to a number of factors such as an increase in Value Added Tax (VAT), the likelihood of corporate and personal taxes and the current state of the Vanuatu economy, that the likely impact of raising fees could be seen as negative to the industry and public concerned. Thus, fees have been held at current levels.

8.4 COMPLIANCE AND ENFORCEMENT

TRR actively monitors and enforces, in accordance with its regulatory framework and the Act, the objectives of the radiocommunication frameworks, requirements and obligations are met and achieved. In doing so, in 2017, TRR staff travelled to and around the main provinces to obtain records of all users who are, and who are not, registered in TRR's radio apparatus database.

8.4.1 MARITIME RADIO APPARATUS COMPLIANCE

In 2017, TRR stepped up its monitoring and inspection efforts in respect of marine vessels, ships yacht owners, and agents to ensure compliance and safe use of marine radio apparatus/equipment, and to identify any radio equipment apparatus that may not have been registered licensed for use. TRR's compliance activities identified a number of vessels operating without licences, and TRR is taking further steps, working with the Ports and Harbour, to make sure they comply with the obligations as specified in the Act.

8.4.2 RADIO APPARATUS LICENSE EXEMPTIONS

TRR continued to maintain its effective and satisfactory working relationship with the Department of Foreign Affairs, and the Government of Vanuatu, in exercising its powers under the Act to ensure that all radio infrastructure operated by diplomatic, humanitarian and governmental entities is registered and/or provided for by an exemption (as required) to operate without a licence. TRR's intention in this respect, is for appropriate use and to ensure that spectrum is managed efficiently and effectively, interference is minimised and that the equipment in operation complies with appropriate standards.

8.5 REGULATORY TECHNICAL MANAGEMENT

8.5.1 TYPE APPROVAL

TRR undertook a consultation in late 2016 and into 2017 on the establishment of a type approval regulation. The draft Regulation and subsequent guidelines were reviewed and finalized in third quarter 2017. TRR has subsequently identified that Vanuatu can work in cooperation with the APEC TEL 56 Conformity Assessment and Mutual Recognition Arrangement (MRA) Task Force to simplify further the process of Type Approval for Vanuatu. The aim is to complete this task by mid-year 2018.

8.5.2 SIM REGISTRATION

An internal study was undertaken in 2017 on the need for the implementation of SIM registration, requiring mandatory registration of all prepaid SIMs. An internal report has been conducted and is pending finalisation. The output of this review, if deemed appropriate, will be the development of a full public consultation on this issue a report on recommendations was made and submitted to the regulator for her consideration.

Internet Governance

Building on from the work undertaken and completed in 2016, TRR continued to enforce and, at the same time, monitor general internet governance activities; particularly focusing on cybersecurity activities, utilization of the .vu domain name, support and assistance to the Ministry responsible for Child Online Protection, promotion of awareness and educational programs and activities on other internet matters. A 2017 key focus on internet governance included the implementation and monitoring of the .vu ccTLD Regulation and the development of rules in conjunction with the implementation of a .vu ccTLD Management and Administration Regulation. TRR also contributed human resource support towards implementation of Child Online Protection program, run by the Ministry of Justice, through the Child Protection Desk.

9.1 IMPLEMENTATION AND MONITORING OF .VU ccTLD REGULATION

TRR continued to monitor the effectiveness of the ccTLD Regulation. In particular, with the project TRR is currently working on with the TVL on separation of the .vu Registry and Registrar. TVL currently remains as both the Registry and Registrar at this time; however, complaints have been received from operators and internet communities

concerns on the monopolization of this service. Currently, TRR is implementing part 4 of the .vu ccTLD Regulation as outlined below.

In line with the above, TRR is in negotiations with TVL to ensure smooth facilitation of the transition exercise and, at the same time, ensure appropriate procedures are applied. TRR is anticipated to start the process of competitive selection of the registration process in mid-2018.

PART 4 REGISTRY OPERATOR

10 Interim and On-going Registries and Registry Operators

(1) *Telecom Vanuatu Limited is to be authorised as the interim Registry Operator until such time as an on-going Registry Operator is selected, authorised and ready to commence operations.*

(2) *The Registry operated by Telecom Vanuatu Limited is to be the interim Registry until that time, and the Regulator will publish a statement providing Telecom Vanuatu Limited and the public at least six months' notice before that time.*

(3) *Any actual or claimed intellectual property rights acquired by Telecom Vanuatu Limited as a consequence of its management, administration or marketing of the .vu ccTLD is not to be exercised in any way that impedes:*

- (a) *the authorisation of a Registry Operator by the Regulator under clause 11;*
- (b) *a revocation or transfer of the .vu ccTLD; or*
- (c) *the transfer of the records that make up the Registry to a Registry Operator.*

(4) *The Regulator is to develop and carry out a competitive selection process in order to select a person to be the Registry Operator on an ongoing basis subject to the terms of authorisation.*

9.2 DEVELOPMENT OF .VU MANAGEMENT RULES

Progressively throughout 2017, TRR completed drafting of the Rules, particularly principles and procedures as required by the .vu Regulation. The principles were consulted on. The Internet community members and other stakeholders had the opportunity to provide their views to the TRR. TRR has considered views provided and prepared report of the consultation. The seven principles discussed are now ready for finalization and are as listed right:

Although there was mass circulation of the document as well as uploading to TRR's website, there has been no local formal submission to TRR giving views on the drafted principles.

TRR is anticipated to have these principles be finalized and published by mid of 2018.

1. Domain name markets should be competitive (Domain name should have a choice of registrars);
2. Choice for registrants should be maintained and expanded (Having more choice for registrants);
3. Domain name should be first come, first serve;
4. Parties to domain registrations should be on a level playing field;
5. Registrant data should be public;
6. Registry / Registrar operations within a TLD should be split (Current .vu ccTLD arrangement is seen as the monopoly (Same Registry and Registrar);
7. TLD policy should be determined by open multi-stakeholder processes.

9.3 TRR'S 3RD REGULATORY INTERNET SYMPOSIUM

On the 28th of November 2017, TRR organized its Third Regulatory Internet Symposium at Mele Golf Club in Vanuatu. The meeting promoted a theme 'Promoting safe, Inclusive, Sustainable and Economical Internet Environment' for the people of Vanuatu; which is in line with the current Vanuatu National Cyber Security Policy and the National ICT Policy where priority action plans that were placed on the OGCI and became part of the TRR's responsibilities. Many stakeholders of the internet community in Vanuatu were invited to be part of the forum meeting and, as a result, 10 main stakeholders, including three international participants, attended and presented.

Presenters included international representatives Mr. Keith Davidson, who is a TRR Consultant and an expert in Internet Governance, Mr. Klee Aiken, the External Relations Manager at the Asia Pacific Network Information Centre (APNIC), and Adli Wahid of APNIC. The international representatives shared their experience and offered best practices for internet market development; with a focus on internet security, the Vanuatu Internet Exchange Point and the .vu ccTLD.

The primary objective of the Symposium was to raise the awareness to the internet stakeholders in Vanuatu on the importance of internet security so that relevant steps can be taken to address the ever emerging and increasing cybersecurity threats.

Key outcomes of the Regulatory Internet Forum were as follows:

- The need to implement a restricted list of names in the .vu ccTLD Registry;
- Online fraud through phishing, hacking, ransomware and other security breaches is on the rise in Vanuatu; and so there is an urgent need to set the Vanuatu CERT and also finalize the Vanuatu Cybercrime legislation;
- There is a need to workshop on the continued benefits of operating an Internet Exchange Point (IXP); given an IXP is beneficial to everyone; including the Internet Service Providers (ISP) and users therefore there is a need to improve the current status of the VIX.



Some of the participants who attended the 2017 Regulatory Internet Governance Forum

9.4 ONLINE CHILD PROTECTION ACTIVITIES

TRR continued to provide a supporting role to the Ministry responsible for Child Protection programs; particularly on Child Online Protection. TRR also continued with its own awareness and educational programs across Vanuatu; targeting schools and communities. TRR attended a number of meetings to discuss way forward actions required by the Government on how to address Child Online Protection; particularly given many children of Vanuatu now have access to the internet through mobile data. The supporting role provided by TRR is ongoing.

9.5 TRR'S PARTICIPATION AT THE ICANN 60

TRR, through its internet Governance Officer, attended the 60th meeting of the Internet Corporation for Assigned Names and Numbering (ICANN) - ICANN 60. ICANN is a high-level policy forum and this one was held in Abu Dhabi, United Arab Emirates.

Importantly, TRR gained the opportunity to meet and discuss with big international domain name registries and registrars the possibility of their support and engagement with TRR's considerations of the .vu ccTLD.

Also the TRR Officer participated in four Capacity Building sessions which provided information on multiple aspects of the ICANN ecosystem, including the structure, function, the policy development processes, as well as selected policy topics of relevance to the participants; all of who were representatives of member At-Large Structures and individual members of the Asia Pacific Regional At Large Organization (APRALO).

9.6 PACIFIC INTERNET GOVERNANCE FORUM (PIGF)

With the financial support of APNIC, Internet Governance Forum Support Association (IGFSA), the Australian Government through the Department of Communications, Internet Corporation for Assigned Names and Numbers (ICANN),

Internet NZ, Pacific Islands ICT Regulatory Resource Centre (PIRRC), International Telecommunications Union (ITU), Internet Society, and other in-kind support from Emergency Telecommunications (ETC), Pacific Islands Chapter and the University of the South Pacific, the workshop trainings held during the Pacific Internet Governance Forum (PIGF) were very successful. Training included:

NATIONAL EMERGENCY TELECOMMUNICATIONS PLAN TRAINING WORKSHOP

PROUDLY SUPPORTED BY:



VERY SMALL APERTURE TERMINAL (VSAT) TRAINING PROUDLY SUPPORTED BY:



ONLINE PRIVACY WORKSHOP PROUDLY SUPPORTED BY:



PACIFIC INTERNET GOVERNANCE FORUM (PIGF)

PROUDLY FINANCIALLY SUPPORTED BY:



OTHER IN-KIND SUPPORT BY:



- A National Emergency Telecommunications Plan Framework (NETP) training was delivered to explore suggest and consider appropriate tools to be deployed in the development of National Emergency Telecommunications Plan;

- Similarly, Very Small Aperture Terminal (VSAT) training was delivered to build local capacity given VSAT terminals are critical in supply services to remote areas, and areas that are not serviced by incumbent operators. The style of this service can also play an increasing important role in NETP's and disaster recovery communications efforts;

- Online Mobile Privacy Workshop – the aim of this training was to explore development of a framework for privacy in the digital era;

- Youth Internet Governance Forum – Nexus assisted to get the youth together to discuss what the internet is all about and the surrounding issues and benefits;

- Pacific Internet Governance Forum –

discussions included working for an inclusive, secure and safe internet.

Over 60 representatives across various Pacific Islands participated in these trainings.

The Pacific IGF was organized by the Multi-stakeholder Organizing Committee in accordance with the core IGF principles, where the Government of Vanuatu hosted the meeting in partnership with the TRR. The Pacific IGF programme was developed in consultation with the Pacific Islands Chapter of the Internet Society (PICISOC) members, and inputs from other key stakeholders in the region were provided for. The forum was open and transparent, and it used different approaches such as remote participation to allow widened stakeholder participation. It was an all-inclusive forum with public involvement, input and participation.

Sessions were facilitated by various stakeholders which included experts and persons working in the internet community who discussed their experience in the ICT sector. It included policy recommendations for the future of internet governance, and

provided a multi-stakeholder process for coordination among key practitioners, and for addressing the interests and concerns of end users. The theme of "Working for an Inclusive, Secure and Safe Internet" educated the wider public on the most effective ways to promote Internet access and usage, while simultaneously presenting case studies and best practices in the Pacific.

A joint opening session was organized with the Pacific ICT Days 2017 and the Acting Prime Minister, Hon. Ham Lini Vanuororoa, highlighted the need to ensure that Vanuatu has an inclusive, secure and safe Internet where children would be protected and the Internet could be used in a productive manner.

Sessions were facilitated by Mr. Ian Thompson of the USP. Panelist included experts and persons working in the internet community who freely shared their experiences. The Forum put forward policy recommendations for the future of internet governance, by providing a multi-stakeholder process for coordination among key practitioners.



Photo taken during workshop break

9.7 INTERNET SOCIETY (ISOC) ONLINE PRIVACY WORKSHOP

On 16th May 2017 ISOC, in collaboration with PICISOC and TRR, organized a first ever Online Privacy workshop in Port Vila, Vanuatu. The event took place at the National Convention Centre during the same week that Pacific ICT Days and the second Pacific Internet Governance Forum was held. More than 50 community leaders, students and the general public from Vanuatu and the Pacific island region attended the one-day workshop. Ms. Noelle de Guzman from the ISOC Asia Pacific Bureau Topics was also in Port Vila to facilitate the workshop.

The following topics were discussed during the workshop, which included panel and interactive discussions: ICTs and online privacy in small island developing states:

- Developing a framework for privacy in the digital era;
- Privacy and data protection for Vanuatu's digital natives.

Key Outcomes

- The mixed audience (students and users) were able to learn firsthand about online privacy from international experts.

- Opportunities for interaction were provided where feedback from participants and the panelists on the different topics was obtained.

- The group sessions boosted the understanding of participants where they formed groups to discuss various questions on Online Privacy, before presenting their answers to everyone.

In summary, the Online Privacy Workshop was an eye opener for many who participated; especially the local community in Vanuatu, and many have shared what they have learned in their communities in Vanuatu and other Pacific islands.

9.8 ACQUIRING STATISTICS ON STATE OF VANUATU'S INTERNET MARKET AND ONLINE ENVIRONMENT

In preparing for its 2017 Telecommunications /ICT Market Sector Report, TRR conducted an online survey and also obtained operations information related to the internet market across Vanuatu. As reported in the 2016 Sector report, the internet market is growing substantially. The information collected will also assist TRR in determining if further internet related guidelines and regulations will, or may, be required. From the information collected, it is now undisputed that the internet subscriber base is growing and that social and economic internet policies must be considered. TRR, will discuss this required guidelines or policies further with the Ministry responsible for and existing operators.

9.9 PROMOTING AND EDUCATING INDUSTRY ON DNSSEC (DNSSEC AND CYBERSECURITY)

The day before the PIGF was held, TRR, with the support of ICANN, organised Domain Name Safety and Security (DNSSEC) training working for appropriate personnel. There are a number of technical people, especially from the operators, the Vanuatu Financial Service Commission, Banks and the OGCI attended the training. The training was delivered by an expert from ICANN. This training was a follow-up from the 2016 training.



Picture: Participants during opening of the NETP, Online Privacy Workshop, VSat Training, Smart Sistas training and Pacific IGF. Videos of the event can be found on this link: <https://www.youtube.com/watch?v=xe7HHDC6Hrc>

Enhancing and Awareness of Consumer Rights, Responsibilities and Protection

10.1 GENERAL

In 2017, TRR focussed and delivered on six priority projects as outlined below.

10.2 IMPROVEMENT ON THE EFFECTIVENESS OF THE TRR'S CCC'S PROGRAMS

To empower its Community Consumer Champions (CCC's), TRR's Consumer Affairs Team visited each province

and delivered capacity building for all champions in the six provinces of Vanuatu, as well as residents. This has greatly assisted in raising awareness, the benefits of ICT services and the negative impacts if the devices or services are abused, as well as educating and empowering users in the rural communities.

TRR has now established a monitoring system to ensure a greater return in the investment on this successful initiative. TRR Officers through the awareness and education program supervised the CCC's to ensure the messages delivered are appropriate, valuable and not misleading, and will benefit the users of the services. TRR will continue to promote and utilize the

Champions skills as and when required. Through its partnership in this program, TRR has developed further initiatives such as the mobile application on consumer awareness programs, the use of mobile app called "Network cell infor Lite" to track network coverage (user experience) in areas they visited and report it to TRR, and other awareness activities during major event days such as independence celebrations week, other special days, and upon requests to TRR.

The photographs below show some aspects of the 2017 awareness program rolled out by TRR through its Consumer Officers and its CCC's.

TAFEA



Awareness at Kwataparen secondary school, South Tanna



Ikakahak French Primary School, South Tanna

SANMA



Awareness Team at Saint Barnabas English Primary School, East Coast



Natawa English Primary School, East Santo

MALAMPA



Awareness at Akhamb English Primary School, South Malekula



Magam English Primary School, North Ambrym

TORBA



Awareness at Martin English Primary School, Hiu Island



Toga Community, Torres Groups

PENAMA



Vatuhangele English Primary School



Ngwalona French Primary School

SHEFA



Awareness at Novo School, Emae Island



Community Awareness at Mataso Island

10.3 DEVELOPMENT AND EXPANSION OF TELECOMMUNICA- TIONS/ICT CONSUMER SURVEYS

TRR also conducted a consumer survey to monitor the behaviour of Consumers consuming existing Telecommunications services. The outcome of the consumer survey will guide TRR's approach on building its awareness strategies, protection plan and complaints handling process to enable TRR to tailor its awareness and education programs accordingly. The survey is expected to be completed and reported on by quarter 2 of 2018.

10.4 CELEBRATION OF WORLD CONSUMER RIGHTS DAY – MARCH 15

Each year, the 15th of March, is commemorated as World Consumer Rights Day. TRR, as an advocator of the need for consumer rights, utilizes World Consumer Rights Day to highlight the telecommunications industry and provide awareness and education programs on telecommunications/ICT consumer issues. This year the theme was on "Build a Digital World that Consumers can Trust".

During its presentations TRR emphasised how telecommunications services and ICTs can be used to disseminate information to educate, inform, empower, save and protect people's lives. TRR worked in collaboration with its important stakeholders for this event, primarily the OGCIO, the URA and industry stakeholders to deliver and meet the goals of the event.

The event was a full day program with a Parade from Anchor Inn through town to the Vanuatu National Convention Centre led by the Vanuatu Mobile Force (VMF) brass band, the Honorable Prime Minister, the Deputy Police Commissioner and the Regulator. Three speeches given by a URA representative, a Fiji Consumer Council representative's vision on consumer protection and the sharing of its experiences, with the main speech of the day given by the Honorable Prime Minister of Vanuatu, Charlot Salwai Tabimasmass, the Minister responsible for Telecom/ICT were the highlights.

It was a fruitful day with many people engaging in all of the activities and discussion which centered on the theme of the event. TRR took the opportunity to hold a Posters competition on the subject theme and the holding of panel discussions on Emerging issues for Consumer in Online Services, and Issues of Consumer Focus, Challenges and Way Forward. The panelist included, TRR, licencees, and various Government and private institutions.

Participants, including Students, Youths, Women Leaders, Vanwood Mamas (women and young girls), leaders of respective Ministries and Departments, Police Officers, representatives from the Australian High Commission, Tourism officers and others gained valuable learning from the panel discussions and the consumer rights and protection speeches made during the day, and enhanced by the Honorable Prime Minister's presence.

The event also included a young female businessperson presenting her experience of administering a rural internet café in Malo Island, one of the rural community islands outside Port Vila, highlighting the positive impact and benefits the internet

café' has contributed to the community.

The day was enhanced through those who attended as well as those that were listening on line (live stream). An outcome of the event, was the development of a concept starter document that was presented to the Minister responsible on way forward actions.

The participation of a representative from the Consumer Council of Fiji in sharing Fijian experiences and placing an emphasis on the importance of having a consumer body and how they deal with consumer protection issues in Fiji, will assist TRR and others in the idea of setting up an advocacy body for consumers in Vanuatu.

10.5 SUPPORT AND PROMOTION OF ITU WTIS/ NATIONAL ICT DAY CELEBRATION, MAY 17,

As in previous years TRR continued to collaborate with the OGCIO towards a successful Vanuatu Annual National ICT Day Celebration, 17 May, 2017. This year, TRR had focus on consumer awareness and education to other provinces particularly in Tanna Island. To fulfil that objective, TRR organised and coordinated a very successful day of ICT day celebration in Tanna Island, where a number of businesses and organisations displayed their services and products. Also where the students of the surrounding schools have participated in the celebrations.

The event In Port Vila and Tanna was celebrated in parallel and was held in the week of the Pacific Internet Governance Forum week.



TRR's Community Consumer Champion explaining TRR's function and why its role is important for the Telecommunications Industry in Vanuatu



Photo showing ANZ Bank explaining their internet banking services

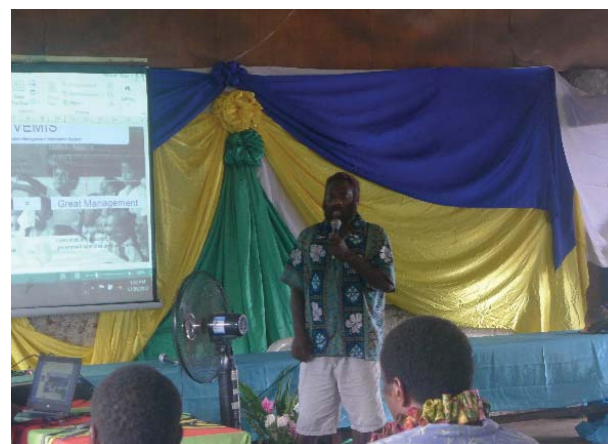


Photo showing OGCIO explaining e-Government network



Photo showing Ministry of education's display of e-education services

10.6 CELEBRATING WOMEN AND GIRLS IN ICT DAY CELEBRATION – 28TH OF APRIL

The Women and Girls in ICT initiative of the International Telecommunication Union (ITU) is a global effort to raise awareness on empowering and encouraging women and girls to consider studies and careers in Information and Communication Technologies (ICTs) and on using ICT technologies to positively enhance their daily operations. The initiative is committed to celebrate and commemorate the International Women and Girls in ICT on every fourth Thursday of April as established by the ITU.

The 2017 Girls in ICT Day celebrations in Vanuatu was coordinated by Women and Girls in ICT Association is a Charitable Association based in Vanuatu and supported by TRR and the Department of Women's Affairs.

For Vanuatu, the celebration has started back in 2012 and continued to be successful since then till to date. This year's celebration saw different participants from last year 2016. A group of women and students were invited to participate in an organized forum discussions on the importance of engaging women and girls in the ICT arena. Over 40 women from the neighbouring village communities including Erakor village, Seaside, and Ohlen and others had the privilege of participating in the

celebration along with about 30 students from Epauto, Malapoa College, Tebakor, Lycee LAB and Lycee Mortmarte, who have positively responded to the invitation. The celebrations was coordinated and facilitated by TRR and the OGCI staff were also part of the celebration. The Women and Girls had the opportunity to hear encouraging speeches from the Director of Women's Affairs of Vanuatu, the Regional Director of ITU Mr. Ioane Koroivuki, the Telecommunications Regulator (participated remotely) and the Chairlady for the Women and Girls in ICT Association.

The presentations were based on empowering women and girls in the field of ICT and encouraging all to use the ICT tools and internet to their advantage in order to enhance and improve their quality of lives.



Photos showing women and girls listening to some presentation at the Convention Centre



Smarts Sistas Program as part of the Women and Girls in ICT development in Vanuatu

For the second straight year, TRR has supported the initiative of the Smart Sistas program; an event for girls aged between 11 and 15 that come under the ITU Girls in ICT initiative. In 2014, Peace Corps

Vanuatu partnered with the OGCI, TRR and other non-governmental organizations and the private sector to create the first annual five-day SMART Sistas Information Communication Technology (ICT) Camp to educate and empower girls to be confident and capable of using technology that is shaping our world. The first camp in 2016 was a success and, in 2017, three of those

ten participants travelled to the United States to participate in the inaugural FIRST Global Robotic Challenge in Washington DC with the support of TRR, OGCI and other local and international individuals and organizations. The SMART Sistas committee is currently preparing for the 2018 FIRST Global Robotic Challenge to take place in Mexico City in July.

Photo showing Smart Sistas receiving certificate during ICT day 2017 at the Convention Centre

10.7 BRIDGING THE DIGITAL KNOWLEDGE GAP

This year’s awareness programs run by TRR specifically targeted UAP sites that were up and operational. The communities in those sites received information from the TRR Consumer Team and TRR’s CCCs. The aim was to enhance and promote awareness and education on the positive use of telecommunications/ ICT in rural and remote communities; with a specific focus on a practical application of knowledge on the positive and workable use of ICT such as internet services in the UAP sites.

TRR utilized many possible and available avenues to disseminate information to the public, including:

- Conducting awareness programs in all the six provinces of the country through both primary and secondary

schools, Church fellowships and community get together meetings;

- Conducting awareness during national and provincial events, including Church meetings, International Youth Day, National/ provincial Cultural celebrations and more others. As well as National ICT Day, Consumer Rights Day, World Media Freedom Day, and more others.

This year, TRR also developed topics suitable for different target audiences and different categories and levels of users. For example, when speaking with young children we placed an emphasis on Child Online Protection and provided advice/information to teachers and parents for their guidance to their children. TRR also targeted teenage groups with knowledge of the impact from use of social media in the community and societies; fully appreciating that it has

been identified that teenagers are the most vulnerable in the use of, and show a high commitment to using, social media. Overall, TRR placed an emphasis on the importance of using ICT tools in a more efficient, productive and useful way.

TRR engaged with and successfully utilized the CCC’s to reach and interact with the community through its awareness programs that it runs.

TRR is tracking and measuring the network coverage of both telecom operators for a range of regulatory reasons as well as having a better understanding of the strength and weakness of the network coverage and issues associated to it. TRR is also utilizing its CCC’s to track network coverage whenever they can to provide TRR with as much data as possible to give it a clearer indication of the coverage and behavior in the entire country.

10.8 TRR MOBILE APP (TRR FACTS INFOR – VANUATU)

The widespread adoption and use of mobile technologies is providing new and innovative ways in respect to how Vanuatu citizens can improve access to and better use of information.

TRR, through its consumer awareness programs and its Consumer Protection Regulation, developed a mobile application (App) to assist all telecommunications consumers across the country. The name of the App is TRR Facts Infor – Vanuatu.

This mobile application provides each consumer with access to information

relating to telecommunications and the intended best practices that can assist consumers to use telecommunications/ICT services in a more effective and efficient way enabling them to improve their quality of life.

The App can be used by any telecommunication user across Vanuatu who has access to a smart mobile phone or tablet and that is able to access 3G internet from either TVL or Digicel, or from another internet service provider in Vanuatu. Additionally, it will help in tracking and monitoring network coverage in the country.

In addition, the App will provide TRR with statsitics of different mobile brands the consumers have when downloading the

App and its installation onto their mobile phones, will assist users to address their consumer complaints directly with the TRR office - after they have unsuccessfully made an attempt to address their issues with their respecitive operator. When a customer is not happy or not satisfied with his/her Service provider on a specific service that he or she purchased; the following steps must be observed and followed:

Contact their Service Provider and lodge your complaint on issues they have faced or are facing;

If no response has been received from their service provider within the expected timeframe, complaints should be sent to TRR including information communicated to their provider;

If consumers are not satisfied with the response from their service provider, they can also send in their complaint to TRR by applying through TRR’s online complaint form currently available on its website (www.trr.vu) or through “TRR Facts Info” via the Google Play store.

TRR will then consider the matter and mediate complaints as required.

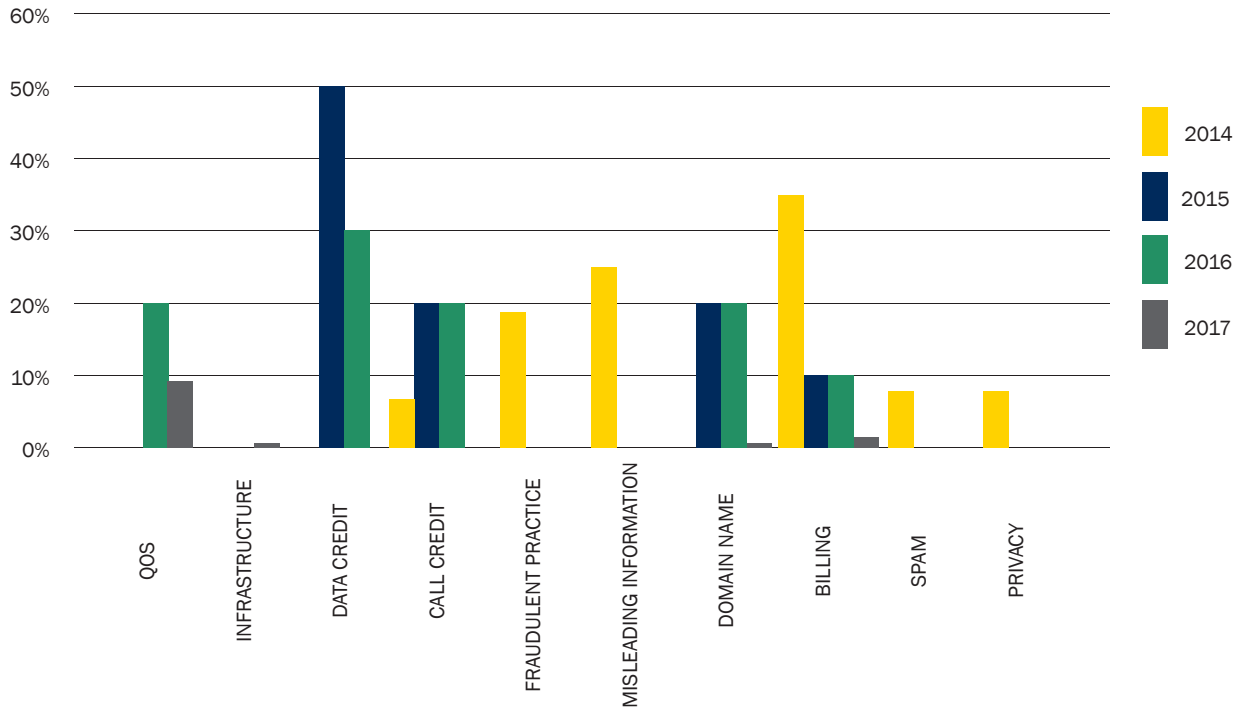
The TRR mobile app (TRR Facts Info) is available on Google Play store for anyone to download and install on their smart devices. TRR has encouraged users of telecommunications Services to download and learn from the information provided.

10.9 CONSUMER COMPLAINTS

There was no increase in some specific complaints received over the year compared to those in 2016. TRR sees that its capacity development and consumer awareness initiatives, tailored through its awareness programs to educate users and consumers of their rights and responsibility, enabling consumers to be smarter users and also be aware of necessary steps required when facing difficulties or issues, is a key reason for this trend.

The Chart below shows the trend of complaint analysis between 2014 -2017. The huge improvement in consumer awareness is shown.

As well as indicating that TRR’s education and safeguard campaign is curently working well, it also shows that licensees are more consumer focused, and that enhanced awareness of and by TRR’s CCC’s and public media programs are making a substantial contribution. TRR will continue to proactively monitor its complaint processes and the types of complaint it receives.



2017 Financial Statement & Auditor's Report

INCOME STATEMENT

For the year ended 31 December 2017

Expressed in Vatu

	2017	2016
Operating Revenue	175,364,979	173,626,702
Operating Expenses	(144,621,612)	(175,038,060)
Operating Surplus before payment to Universal Access Fund	30,743,367	(1,411,358)
Universal Access Fund	-	(10,000,000)
Operating Surplus / (deficit) after payment to Universal Access Fund	30,743,367	(11,411,358)

STATEMENT OF FINANCIAL POSITION

As at 31 December 2017

Expressed in Vatu

	2017	2016
Current Assets		
Cash and Cash Equivalents	74,558,517	48,659,332
Receivables	26,081,958	39,927,084
Other Assets	1,928,103	1,754,171
Non current assets		
Plant and Equipment	17,718,895	22,399,944
Total Assets	120,287,475	112,740,531
Current Liabilities		
Creditors and Accruals	31,545,157	23,192,387
Provisions	1,210,837	1,144,613
	32,755,994	24,337,000
Non Current Liabilities		
Provisions	5,031,845	5,723,019
Revolving Funds	-	30,924,242
Total Liabilities	37,787,839	60,984,261
Net Assets	82,499,637	51,756,270
Accumulated Surplus / (deficit)	82,499,637	51,756,270

Detailed 2017 Financial Audited report can also be accessed from TRR's website www.trr.vu

Annex 1

Register of Consultants 2017

In accordance with section 11 of the Act, the list below provides the name, position held, and area of expertise of each of the consultants and advisors engaged by TRR, and the work they have performed for, and on behalf of, TRR during 2017. The list is current as at 31 December 2017.

NAME	POSITION HELD	AREA OF EXPERTISE OR PROJECT RESPONSIBILITIES
Ronald Box	Advisor to the Regulator	Former Regulator from 2015 – 2017, providing high level advice and guidance to the Ni-Vanuatu Regulator.
Eric Braun	Legal Specialist	Legal and specialist assistance and guidance to TRR on legal, regulatory and economic policy matters. Eric works closely with the Regulator and TRR's Manager's and staff; in particular, TRR's legal and Market Competition Officers.
Incyte Consulting	Telecoms. Competition & Economic Regulatory Expert	Incyte Consulting provides general, wide-ranging expert telecommunication regulation guidance; including analysis and determination of relevant markets, strategic measures for addressing anti-competitive actions, and relevant economic and competition assistance to the TRR team.
Dale Stacey	Spectrum Audit Expert	Provides expert high-level spectrum audit support and guidance to TRR in carrying out all aspects of the spectrum audit work, including audit techniques, detecting unauthorised spectrum usage. Dale Stacey brings wide experience in the application of analytical audit tools.
Sat Pty Ltd	Coverage Audit Expert	Conducts mobile coverage and internet coverage, as well as testing for fixed and mobile services across Vanuatu; as a means of verification of current and existing telecommunications coverage. In addition, it assists TRR in conducting quality of service measurements.
Keith Davidson	.VU ccTLD Domain Name Development, Management and Administration Specialist	Assists, guides and supports the work of TRR's key officers to smoothly facilitate .VU ccTLD (registry) transition processes.

