



Government of  
The Republic  
of Vanuatu



Telecommunication &  
Radiocommunication  
Regulator

PO Box 3547  
Port Vila  
Vanuatu  
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## **Governance for Growth**

### **INFRASTRUCTURE FACILITY GRANT for CONSULTING SERVICES**

#### **REQUEST FOR EXPRESSIONS OF INTEREST**

### **Firm, Consortia or Individual Consultants – Identification of Benefits and Future Strategies for the Development of Information and Communications Technology in Education and the Surrounding Local Community**

#### ***Role***

The Government of Vanuatu (GoV) through the Telecommunications and Radiocommunications Regulator (TRR) has received financing from the Australian Government's Governance for Growth (GfG) programme and intends to apply this grant as part of the proceeds for consultant services; in this case the services of an **Expert for the – Identification of Benefits and Future Strategies for the Development of Information and Communications Technology in Education and the Surrounding Local Community.**

As Vanuatu develops its competitive and increasingly dynamic telecommunications and Information and Communications Technology (ICT) sector, there is a need to ensure that the population has adequate access to ICT technologies and services. Central to this is the provision of ICT services and infrastructure within the education system, in particular within school, and to allow the community to interact with the information society at large. In doing so the knowledge of how to use ICT tools and services for the benefit of oneself, the community and the country at large can only help to create modern and competitive Information and Communications sector that has a positive impact on the economic development of Vanuatu into the future.

Vanuatu is a developing nation and is in need of in-depth expertise in understanding how ICT services can be implemented into the education system and the community at large. More specifically, is the need for expert knowledge and skill including knowledge and skills transfer on the conduct of the **Identification of Benefits and Future Strategies for the Development of Information and Communications Technology in Education and the Surrounding Local Community.**

Expressions of interest are sought from Firms, Consortia or Individuals (the Consultant) with expertise in evaluating the use of ICT within education (schools) and the community, preferably in the Asia-Pacific region; to support the Government of Vanuatu (GoV), the Ministry of Education and Training (MoET), the Office of the Government Chief Information Officer (OGCIO) and TRR in performing the related duties in accordance with the National ICT Policy, the Cybersecurity Policy and the Universal Access Policy (UAP). The Consultant will provide expert high-level support, capacity building, knowledge transfer, guidance and must possess relevant and considerable wide ranging demonstrable experience to carry out all aspects of the work required by TRR.

Interested and eligible Consultants must provide a response to the Terms of Reference (TOR) and strong supporting information indicating that they are qualified to perform the services (brochures, description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, etc. from firms and CV's of individual consultants). Training & knowledge transfer in the form of on-site discussions and coaching is required and appropriately scheduled with the Expert.

***The objectives of this Assignment include***

The primary purpose of the consultancy task is to:

- I. Evaluate and identify the benefits arising from the increased use of ICT by students, teachers and school administrators, including to the support and in the course of the educational process.
- II. Evaluate and identify the benefits arising from the use of ICT by the surrounding local communities and businesses, including enhancing their day to day social and business activities.
- III. 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.
- IV. Collect, assess and report the findings of the monitoring and evaluation exercise.

***Required Experience and Qualifications***

The applicant should have the following combination of qualifications and experience:

- At least 10 years in the Education, Telecommunications and ICT sectors with relevant international and project experience;
- Demonstrable experience in the understanding of ICT in an educational environment and its impacts on pedagogy, curriculum and administration;
- Demonstrable experience in the understanding of ICT in a community environment;
- Experience with Small Island Developing States (SIDS) and related working environment;
- Competency in capacity building; and
- Ability to work with the TRR team and required GoV stakeholders.

The Consultant must demonstrate relevant technical know-how including capacity building and developmental skills, ethical judgment, advanced communication skills, highly motivated, flexible, team player, and problem solving skills. Experience working in a Pacific Island country would be an advantage.

### ***Submissions***

The Consultant will be selected in accordance with the selection based on procedures as set out by the Governance for Growth program.

Interested persons may obtain the Terms of Reference at the following address below during office hours *0800-1700 hours, Monday to Friday, Vanuatu Time.*

Expressions of interest **must** be delivered to the address below by Close of Business at 4.30pm **Friday, 14<sup>th</sup> July 2017.**

**TO: EOI – Expert for the Identification of Benefits and Future Strategies for the Development of Information and Communications Technology in Education and the Surrounding Local Community**

**Telecommunications & Radiocommunications Regulator**

**Attn: The Regulator – Dalsie Baniala**

**A:** PO Box 3547, 1<sup>st</sup> Fl. Oceanwalk Building, Lini Highway, Port Vila, Vanuatu

**T:** +678 27621 | **F:** +678 27440

**E:** hansonwaki@trr.vu or jobs@trr.vu

**W:** [www.trr.vu](http://www.trr.vu)

## APPENDIX A – DESCRIPTION OF SERVICES/TERMS OF REFERENCE

### Identification of Benefits and Future Strategies for the Development of Information and Communications Technology in Education and the Surrounding Local Community

#### 1. Introduction

The office of the Telecommunications and Radiocommunications Regulator (TRR) was established by an Act of Parliament called the Telecommunications and Radiocommunications Regulation Act 2009 (the Act). The Act mandates TRR to regulate the telecommunications sector. TRR stands firm on a vision to establish *“A communications environment that enriches the social, cultural, customs and commercial fabric of Vanuatu.”*<sup>1</sup>

TRR’s overall responsibility is to safe-guard the consumers and to ensure to achieve the objectives of the Act, which are to facilitate the development of the telecoms sector and manage radio-frequency spectrum in order to promote national social and economic development. TRR’s role is also to ensure there is healthy and fair competition between service providers and that they comply with the Act and their licence obligations.

The availability and quality of modern ICT services are critical elements for Vanuatu’s development. It is well known that ICT services allow different economic and social sectors to benefit from enhanced communications, applications and services. In many cases these technologies, particularly broadband data capabilities, have tended to be deployed on those areas of the country that are more densely populated such as the islands of Efate, Santo Espiritu and Tanna.

The Council of Ministers of the Republic of Vanuatu, pursuant to section 17 of the Act, approved a Universal Access Policy (UAP) in November 2013, for improving access to telecommunications service for locations, which are not served or not adequately served by existing services. The UAP has the following objectives:

1. By 1 January 2018, 98% of the Vanuatu population shall have (and continue having after this date), access to the following telecommunications services: voice; narrowband data services, including text messaging and broadband Internet services.
2. Services shall be available by 2018 to: primary, secondary and tertiary schools, vocational training facilities as well as early childhood education facilities; health facilities, including hospitals, health centres and dispensaries; public offices.
3. Quality of telecommunications services referred to in the UAP shall comply with the minimum standards prescribed by the Regulator after a consultation with service providers, and that the level of access to telecommunications services achieved shall not be decreased.

With the challenging UAP objectives to implement the TRR, via seed funding provided by the Australian Government under the Governance for Growth (GfG) program, developed a program to implement computer laboratories, tablets and internet services into a number of schools across Vanuatu. This program provided support to the UAP objectives, particularly point 2, but more importantly provided an opportunity for those schools and communities which are in unserved or underserved areas to participate in the ICT development of the country.

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<sup>1</sup> The key activities and functions of the TRR can be found on its website: [www.trr.vu](http://www.trr.vu)

A criteria for the award of the seed funding provided by the GfG program required that the project has a Monitoring and Evaluation (M&E) component to determine the outcomes and how the success or failure of the exercise of implementing computer laboratories and tablets, can be translated into the policies of the Government, particularly the Ministry of Education and Training (MoET).

Whilst the TRR has expertise to evaluate the success or not of the technical infrastructure, the TRR does not have the expertise to evaluate the use of Information and Communications Technology (ICT) in schools from a pedagogy and curriculum perspective as well as how ICT contributes to the social inclusiveness of the community.

The use of ICT in schools and the impact on curriculum and pedagogy has not been investigated within the South Pacific Region. The outcome therefore of this M&E activity is likely to be reviewed by other jurisdictions as an outcomes model for ICT in education. It is therefore seen as an important activity whereby others can learn from the experience gained in Vanuatu.

## **2. Background to this Assignment**

As stated by the Government's Universal Access Policy (UAP), Telecommunication and ICT services must cover 98% of the population by the 1st of January 2018. To support this initiative three (3) UAP projects were developed, these being:

- I. Computer Laboratory and Internet Community Centre (CLICC)
- II. Tablets for Schools (TFS)
- III. Internet Community Senta (ICS)

Both the CLICC and TFS projects required schools and local communities to apply to be selected as part of the infrastructure and services to be provided under the UAP policy and funding arrangements. In order to be selected, the school and community had to ensure that the following requirements were met in order to ensure success of the CLICC program:

- Set up an active, involved and enthusiastic school and community committee to ensure that the CLICC project works well. The head of this committee and/or the principal of the school will need to sign a contract acknowledging receipt of the assistance and committing to the project.
- Raise matching funds to cover some of the costs of the project, and show that the school and community will commit to the project.
- Be active in the building of the CLICC, and provide a suitable school room for the lab at no rental cost to the project (computers in the school library are acceptable).
- Make sure the CLICC is open to the public after school hours, for use by the community, preferably on a free or low fee basis.
- Provide proof of land ownership and confirmation of no disputes related to the school compound and location of CLICC.
- Provide plan to ensure sustainability of the facility with support from the community.
- Provide volunteer and/or paid staff to monitor the use of the computer lab during the hours it is open to the public.
- Keep accurate records of the equipment and the funding, and be expected to provide accurate and regular reports to TRR.
- Locate persons who can install, maintain and repair the equipment and run the CLICC computer lab. These can be teachers, local volunteers, Peace Corps or other IT volunteers, young people who know about computers, community members, outside contractors, or others.

- Use the lab and resources to create local content in local languages and Bislama to be used for both teaching and sharing with other schools and communities.
- Report regularly to TRR on the progress of the project, what is working and what did not work, and evaluate the successes and failures of the implementation.

Nineteen schools (see Appendix B) were successful in being selected, with the selected schools covering the length of the country. An important aspect of the provision of a CLICC or TFS site was that the community had to be engaged and that the site would be open for use by the community during non-school periods.

To date all sites have been implemented and the labs in full operation. Anecdotally, from site visits and discussions with representatives on the ground, the CLICC labs in particular are being utilized for both educational and community purposes. Therefore with sites operational it is essential that the benefits of these services and the future strategies for sustainability be evaluated and included in strategic planning activities.

### **3. Terms of Reference**

The objective of the CLICC sites is to fundamentally provide telecommunications access to the selected sites and primarily increase the knowledge and use of ICT within the school environment, integrate ICT into the curriculum and utilise educational materials for learning. Secondly the infrastructure will facilitate the use of the OpenVEMIS database application system for school and student management. Thirdly, the CLICC site is open to the general community for their use to again increase and improve knowledge of ICT, increase the development of local content and provide a central hub for the delivery of e-Government services into the future.

The anticipated impacts of the CLICC implementation is to see a population better equipped with the skills necessary to participate in the ICT economy and society in general and an increase in educational participation and achievement in particular.

The primary purpose of the consultancy task is to:

- I. Evaluate and identify the benefits arising from the increased use of ICT by students, teachers and school administrators, including to the support and in the course of the educational process;
- II. 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;
- III. 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; and
- IV. Collect, assess and report the findings of the monitoring and evaluation exercise.

In order to achieve this, the expected scope of the M&E project is to include the following activities;

- Selection of a representative subset of schools in the CLICC and TFS programs for study;
- Preparation of a study methodology and question and answer (Q&A) for baseline measurements on ICT use in schools;
- Utilisation of local in country resources to undertake the Q&A sessions at schools and be active in the ongoing project and expected deliverables;
- Regular updates on trends identified;

- The impact of the implementation of UAP, ICT (on TRR's priority areas) and Cyber security Policies;
- The impact of CLICC programs at the user level;
- The impact on teaching modules and mediums;
- The impact on the community in general;
- The impact on student's learning performances and approaches
- The impact on teacher's learning and teaching materials and approaches;
- The impact on teachers effective teaching performances;
- The impact on community leaders effective leadership roles and functions;
- Whether such technology and the educational content provided is appropriate and accepted by the Ministry of Education (acceptance of educational content at the national level);
- What could be done to reduce cost of the teaching service now that the access and service of ICT/Telecommunications is available;
- Linking outcomes of this activity to Education policies and UAP;
- Whether the current model of CLICC is contributing to an increase in the ICT and educational outcomes that are expected;
- What other alternatives may be appropriate.

Instruments and methodology will be developed by the Consultant to gather this information from each site; the data will be critically evaluated by the Consultant and reports submitted outlining trends, issues, benefits and recommendations for considerations by appropriate stakeholders.

Proposals are sought from an Expert Firm or Individual (the Consultant) with expertise in the identification of benefits and future strategies for the development of ICT in an educational and community environment - preferably in the Asia- Pacific region and with experience in similar topology and topography to Vanuatu to and undertake the task as outlined in these Terms of Reference (TOR) and support the TRR in performing these related duties.. The Consultant will provide expert support, conduct tests and must have the relevant and extensive wide ranging demonstrable experience to carry out the works as stipulated in the Objectives and Assignment Tasks below.

The expert will be required to provide high-level and relevant ad hoc support, guidance and advice to TRR, upon request on all such associated matters, as relevant and within the Scope of Assignment.

The expert must work cooperatively with the Regulator, assigned TRR staff, the UAP Team, MoET, OGCI and persons within their place of work; including other parties and stakeholders of TRR, particularly the OGCI, as directed. This is to ensure that a sound understanding of the work to be and actually conducted as well as the core concepts and capacity to implement these concepts are transferred with each assignment or work package. A critical component of this assignment is the ability to transfer technical knowledge and skills to national counterpart(s) for the duration of the consultancy.

#### **4. Assignment of Tasks**

The successful candidate is expected to deliver the following outputs, results and deliverables for the assignment which is expected to be completed by 31 October 2017. To achieve the above objectives the consultant will perform, but not be limited to, the following key tasks:

##### **4.1 Inception Work Plan**

*Part A (Offsite): Initial work*

- a) Several conference calls/Meetings with TRR to develop initial strategy and direction, and agreement of the Client to proceed.
- b) Develop questions/issues for discussion and discussion during onsite work (Part B) of this task for TRR, MoET, OGCIO, Government and selected sites.
- c) Begin documentation associated with this Task.
- d) Develop agenda for onsite work (part B) of this Task.
- e) Virtual agreement (TRR and the Consultant) on the work program as guidance for each visit.
- f) Agree on the reporting format.
- g) Capacity building arrangements.
- h) Develop overall project plan.

*Part B (Onsite): Workshop and Logistics Development*

- a) Onsite activity to be as agreed upon
- b) Onsite meeting with TRR to develop overall project strategy. This includes the following:
  - Confirmation of questions/issues for discussions during site visits.
  - Determine any changes to strategy that may be required as a result of workshop outcomes.
  - Identify and confirm key locations for visits and follow up.
- c) As required and determined in workshop, have initial face to face meetings with the various stakeholders, MoET, OGCIO and others as required.
- d) Ensure adequate information and full planning is conducted, determined, documented and agreed to enable execution of Task 2 to begin.
- e) Make changes to scope and/or pricing of tasks 2-6 as agreed with TRR as an outcome of the workshop.
- f) Complete documentation associated with Task 1 (expected to be a brief 5-10 page document).

**4.2 Field Work**

- a) Devise surveys and interviews to determine a base line of current practices across the CLICC's and monitor any changes in these over the period of the Consultancy. The Consultants will guide the work in formulating the learning outcomes, the survey tools and the reporting, with assistance from TRR, MoET and other experts as required.
- b) Data gathering will be done through visits to each site by the Consultants project team. Each site will be visited on an agreed number of visits (for example once at the beginning, middle and end of the Consultancy) and separate surveys conducted of teachers, parents and students during each visit. Email contact with key CLICC/TFS, TRR and MoET stakeholders will be maintained during the course of this Consultancy.
- c) To devise a methodology to complete the survey work within an appropriate timeframe. This methodology may be used as a capacity building exercise and take into consideration the engagement of suitable Ni-Vanuatu residents familiar with the area concerned to be used as field researchers. All field researchers (if any) should be trained for one day before commencing the site surveys and be debriefed on the completion of the survey.
- d) It is understood that limited operational data is available from the servers and it would be valuable to gather data on which education resources have been accessed and when. While this will be gathered by the survey through questions to teachers and students, it will be somewhat imprecise. A record of all locally generated content at each site will be made.
- e) During field visits, Consultants will also interview key stakeholders in Port Vila to gather information on any policy, administrative or operational issues.



### 4.3 Report Compilation and Capacity Building

- a) Produce a final elaborative, informative, reliable and accurate report and documentation of findings during the field work;
- b) Clearly identify and articulate the benefits and weaknesses of the current arrangements for ICT in education and the community;
- c) Develop future strategies that are able to be implemented by MoET and the GoV that are sustainable and economically sound;
- d) Deliver a presentation to TRR, MoET, OGCIO and other appropriate stakeholders in addition to the report and documentation of the findings, and way forward recommendations;
- e) Capacity building to appropriate stakeholders on all aspects of the required tasks and deliverables, including the methods used to collect and analyse.

## 5. Outcome and Results

On completion of the project, the core team will evaluate the results of all surveys and interviews and publish a final report within 1 month of completion of the final surveys. Documentation output from this methodology is anticipated to include, but not be limited to, the following;

- Regular updates on project progress
- Regular updates on trends or issues that have been identified
- An evaluation conducted in conjunction with the Ministry of Education on the overall appropriateness of the technology and educational resources for national application
- An evaluation of the cost and the impact on the quality of teaching and learning resulting from the use of ICTs
- An evaluation of the cost and impact on the community resulting from the use of ICTs
- Recommendations for the development of strategies and policies to support larger scale use of ICTs in schools
- Recommendations for the development of strategies and policies to support larger scale use of ICTs in communities

## 6. Reporting Requirements

The Consultant will report directly to the Regulator in line with the requirements of their contract. The Consultant will also work regularly with the OGCIO, MoET and the TRR UAP Team as determined.

## 7. Language

The official language for reporting and communication for purposes of this Terms of Reference is English. All materials are to be produced in English.

## 8. Child Protection

The Consultant must comply with the Vanuatu Child Protection Policy<sup>2</sup> and the Department of Foreign Affairs Child Protection Policy<sup>3</sup>. The Consultant must provide evidence that they are aware of and will comply with these policies as part of their response.

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<sup>2</sup> [http://www.mjcs.gov.vu/images/policy/Fact\\_Sheet\\_NCPP11.pdf](http://www.mjcs.gov.vu/images/policy/Fact_Sheet_NCPP11.pdf)

<sup>3</sup> <http://dfat.gov.au/international-relations/themes/child-protection/Pages/child-protection.aspx>

## **9. Office Space**

The Client shall provide to the Consultant such reasonable office space, equipment and access, if required during any visitation to Vanuatu, to enable the Consultant to perform the tasks contemplated in this TOR.

The consultant will be required to provide his/her own appropriate IT equipment such as computer or phone for works.

## **10. Counterpart Knowledge and Skills Transfer**

Over the duration of the assignment it is expected that the Consultant performs capacity building training which will involve the transfer of knowledge and technical skills to local counterparts. The Consultant is expected to actively engage, comment and report positively on certain areas of improvement for TRR staff, where further training may be required.

=== END TOR ===

## APPENDIX B – LIST OF SCHOOLS TO BE CONSIDERED FOR REVIEW

### Information and Communications Technology in Education and the Community – Identification of Benefits and Future Strategies

The following table provides information on the schools currently supported in the CLICC and TFS program. Consultants are expected to select a representative sample of schools to review as part of this exercise

Site Name	Island	Province	Long	Lat	Provisioned	Operational	Internet Service Type	Internet Service Speed
Ambaebulu School	Ambae	PENAMA	167.98183	-15.29517	CLICC/TFS	Yes	Fixed Wireless	4Mbps
Torgil RTC	Ambae	PENAMA	167.98613	-15.27909	CLICC	Yes	VSAT	4Mbps
St Patrick's College	Ambae	PENAMA	167.96379	-15.27755	CLICC	Yes	Fixed Wireless	Shared 14Mbps
Lycee LAB	Efate	SHEFA	168.314406	-17.726184	TFS	Yes	Fixed Wireless	6Mbps
Epi High School	Epi	SHEFA	168.167237	-16.59165	TFS	Yes	Fixed Wireless	4Mbps
Sulua School	Maewo	PENAMA	168.10535	-15.16771	CLICC	Yes	VSAT	Shared 14Mbps
College d'Orap	Malekula	MALAMPA	167.34351	-15.97059	CLICC	Yes	Fixed Wireless	2Mbps
College de walarano	Malekula	MALAMPA	167.37398	-15.98973	CLICC	Yes	Fixed Wireless	2Mbps
Lambubu School	Malekula	MALAMPA	167.3989	-16.165	CLICC	Yes	VSAT	4Mbps
Lamap Schools	Malekula	MALAMPA	167.80449	-16.42603	CLICC	Yes	Fixed Wireless	Shared 14Mbps
Eles Center School	Nguna	SHEFA	168.386319	-17.481816	CLICC	Yes	Fixed Wireless	2Mbps
St Anne	Santo	SANMA	167.07401	-15.0403	CLICC	Yes	Fixed Wireless	4Mbps
Matevullu College	Santo	SANMA	167.16901	-15.3835	CLICC/TFS	Yes	VSAT	Shared 14Mbps
Sarakata Primary School	Santo	SANMA	167.17081	-15.51047	CLICC	Yes	Fixed Wireless	4Mbps
Venie Mataipevu	Santo	SANMA	166.78128	-15.5452	TFS	Yes	VSAT	Shared 14Mbps
Merei Center School	Santo	SANMA	166.78128	-15.59691	TFS	Yes	VSAT	Shared 14Mbps
Loukatal School	Tanna	TAFEA	169.253722	-19.514454	CLICC	Yes	Fixed Wireless	2Mbps
Tafea College	Tanna	TAFEA	169.255811	-19.4807706	CLICC	Yes	Fixed Wireless	4Mbps
Arep School	Vanua Lava	TORBA	167.54659	-13.87283	CLICC/TFS	Yes	Fixed Wireless	4Mbps

## APPENDIX C – CURRENT DATA TRAFFIC VOLUMES

### Information and Communications Technology in Education and the Community – Identification of Benefits and Future Strategies

The following graphs provide some indication on the growth of traffic on a total basis and for each respective school with CLICC or TFS facilities. The dip from December to February is due to summer school holidays and Kacific changing satellite ground station infrastructure

