



Universal Access and Service Projects for 2020

Date of Submission: 24th May

Project Proposal Form – FORM 002

(All project proposals submitted MUST follow this format and sequence. Projects proposals which do not follow this format and sequence may not be considered. All questions must be answered)

Applicant Information			
Name	<i>Sepura Amul (Ms)</i>		
Organization	Type of Organization: <input checked="" type="checkbox"/> Community/Village/Education Institution <input checked="" type="checkbox"/> Government <input checked="" type="checkbox"/> Private <input checked="" type="checkbox"/> NGO <input checked="" type="checkbox"/> Other		
Position	<i>Teacher In Charge Information Communication Technology- TSO3</i>		
Mailing Address	<i>Rosary Secondary School-Kondiu, Private Mail Bag, Kundiawa, Simbu</i>		
Telephone	<i>70919616</i>	Fax	
Email	<i>sepuraamul@gmail.com</i>		

Project Information	
Project Title	<i>Construction of a cell Tower</i>
Project Location	
Province	<i>Simbu</i>
District	<i>Kerowagi</i>
LLG	<i>Gena-waugla</i>
Ward	<i>Ten (10)</i>

Project summary

In Rosary Secondary School-Kondiu and the surrounding community, they are faced with one problem, that is the network coverage is not that effective. The people can confidently say that they are an underserved area in Kerowagi District, Simbu Province that fall under "Indicative Project Areas: Program 01: Mobile Broadband Expansion and Upgrade" but they believe that NICTA as ranked their area as covered but unfortunately it is otherwise. Therefore, the purpose of this proposal is to request for a **cell tower** to be built in Rosary Secondary School-Kondiu, upon a hill-top called Blue Mountain, Catholic Agency land. The people of Kondiu struggle to communicate with the outside world or to update themselves with the latest News and Events. To get e-mails on time or to go up to social media is a struggle. To download is a very complex and time and data consuming process. Therefore, many are ICT illiterate the teachers use basic Microsoft office for their basic teaching using those resources that are in hard copy but cannot access the e-Books for supplementary notes or further their knowledge on other resources on line. On the other hand, the government is expecting a production of skilled and knowledgeable work force for the labour market, for the private and public sector as stated in chapter 3.2.2 Opportunities "Human Resource" in the Medium Term Development Plan III 2018-2022(MTDP III 2018-2022). Likewise, the similar situation applies to our local community where majority of them are farmers. They have the agricultural produce and livestock to sell to contribute meaningfully to the province and country as a whole to generate internal revenue, however there is no market available for them to do what they are dreaming of. Despite the Executive Summary (MTDP III 2018-2022) that states in the key Objective six (vi) that it would support provinces and districts to generate sustainable internal revenue. The people and the institution of Kondiu see the proposed project of the cell tower as an opportunity for them to live up to the MTDP III 2018-2022 and know that where roads cannot go NICTA will go, where ships cannot go or any means of transport for that matter cannot NICTA will build roads in the sky and connect them to the rest of Papua New Guinea and the Global community.

Project Cost	Requested Amount	Own funding
K600 000	K600 000	K40 000

Duration of the Project

From 01st August 2020 To September 2020

(The project is to be concluded within 12 months from the date of announcement of selection by the NICTA (UAS Secretariat)

Contact Point Information

(If contact point is different from the applicant, please fill in as follows)

Name	

Organization			
Address			
Position			
Telephone		Fax	
Email			
		Date	24 May 2019
<div>Signature</div> <div></div> <div></div>			

Project Details

Please describe outline of the pilot project	
Objectives	<p><i>The objective of the project is to:</i></p> <ol style="list-style-type: none"> <i>1. have good network coverage in the school to enhance students learning and teachers teaching.</i> <i>2. Have the community to be updated with the latest News and events around the world.</i> <i>3. Enable the community to do Online marketing.</i> <i>4. provide security and self-reliant health care for the community and schools.</i>
Purpose of Project	<p><i>The purpose of the project is to have better coverage so that community, villages and the institution could access full coverage at a comfortable location for the current population and the future. Hence, a tower for better signal is of great need.</i></p>
Outline of pilot project	<p><i>A brief description of the project is as follows:</i></p> <p>Equipment <i>antennas, transceivers, DSPs, Control Circuitry, GPS receiver, power sources and shelter structures/electronic cabin.</i></p> <p>Networks <i>The network that is proposed for is a Lattice Tower 45 meters.</i></p> <p>Design and schematics <i>(please find attached schematic diagram)</i></p>
Appropriateness of the Project	<p><i>The extent to which the Project can support and improve the lives of persons in the project areas evidenced by</i></p> <ul style="list-style-type: none"> <i>• Needs analysis (what is the problem, development opportunity, priorities that project seeks to address)</i> <p><i>network coverage in the school is underserved hence better coverage is needed to enhance students learning and teachers teaching. This includes very important events that are being endorsed by the Education Department like the filling in of the school leavers form, the application and the Online selection of students to be done in the school ground effectively to meet the due date. This is the first and foremost need.</i></p> <p><i>Learning needs to be enhanced by e-learning for teachers, students and other school leavers.</i></p> <p><i>The second need is effective communication and dissemination of information to the community and school to be updated with the latest News and events around the world and to get in touch with friends and families. There is a general need for education in the community to sustain it.</i></p> <p><i>The third need is security and self-reliant health care for the community and schools.</i></p> <p><i>The fourth point is the development opportunity that this project would have on the community in terms Online marketing. At the moment the local farmers produce more than what their local market could buy and all the vegetables and life-stock go to waste or are sent as gift to friends and families.</i></p>

	<p>• Project details</p> <p><i>The tower project to address the underserved parts of the Wagi valley in Simbu particularly Kondiu, its Communities, churches, Elementary Schools, Primary School and Secondary School would serve a population of approximately 18 000.</i></p> <p>• Applicability to community needs</p> <p><i>The tower is very important and is applicable to the need of every individual in the academic institutions and local surrounding community.</i></p> <p><i>The problem in the area is that this part of Simbu is along the Wagi valley hence the broadband mobile services does not reach them. Therefore, this underserved area needs Mobile Broadband Expansion and upgrade (Program 01).</i></p> <p><i>The school needs excellent upgraded coverage to effectively educate the students that are entrusted to their care.</i></p> <p><i>The community also need opportunity to sell their vast and rich fruits and vegetables that are produced to the national market. Finding a market is a big problem but when listening to the public consultation on Friday 10th May about on line marketing app being developed and woman in Jiwaka are using I know that with better coverage the community of the people of Naur-Gor, Enduka, Bari, Gena-Waugla will top the chart of agricultural produce in Simbu.</i></p> <p>• Project location: Rosary Secondary School</p> <p><i>(please find attached the Site Map of Rosary Secondary School- Kondiu)</i></p>
<p>Number of Persons benefiting from the project</p>	<p><i>How many persons would directly and indirectly be benefitting from the project evidenced by</i></p> <p>• <i>Proposed number of participants & the cross section of the community's population</i></p> <p><i>All in all, the proposed project of a Signal Tower, in Program 01: Mobile Broadband Expansion and Upgrade would benefit these respective persons in the community:</i></p> <ul style="list-style-type: none"> • <i>Students (Secondary School Students- population 1400, primary school students- estimated population 400, elementary students- estimated population 200,)</i> • <i>Public servants- (secondary teachers- population 45, Primary Teachers- population 32, elementary school- population 20)</i> • <i>Support staff- (workshop- population 15, farmer-population 25)</i> • <i>Farmers – (estimated population 6000)</i> • <i>Fisherman (estimated population 50)</i> • <i>Elderly – (estimated population 3000)</i> • <i>Toddlers (Not yet in school)- (estimated population 6000)</i> • <i>Unborn babies-(1000)</i> <p><i>A total population of 18,187</i></p> <p>Project impact on the community</p> <p><i>The impact the tower would have on the community would be massive. The respective groups that make up the community such as the Schools (Elementary, Primary and</i></p>

Secondary Schools) and the local community.

The Schools

The Elementary and the Primary Schools around community would greatly benefit from teachers accessing learning materials online. Necessary teacher need such as the pay slip could be accessed too. Hence, it will result in more on the ground time to educate the young.

Rosary Secondary School- Kondiu

The direct benefactors of this project would be Rosary Secondary School with a population of 1800 with three different department working to keep this very big school going. Here is the impact the project would have on the school

1. The workshop department:

- *This department would use the better coverage to order materials on line for it to be delivered to the school.*
- *The department could upgrade their carpentry, plumbing, ICT and electricity skills on line by reading additional materials.*
- *Finally, they could sell their furniture to market on-line.*

2. The Farm department:

- *This department has a cattle farm, poultry rearing and vegetable farming. The better upgraded internet connection would enable the farmers to receive expert agricultural information*
- *Find a market is one problem that makes the farm department to minimize the number of their produce with this project it would open doors and create opportunity of a nationwide market for their produce online.*

3. The Aid post /Health Centre department:

- *This department has a HEO who provides basic medical services to the community and students, the infant basic growth development check. The Medics from the nearby rural hospital visit the health center to provide checks.*
- *To have an e-health record and constant database that could be accessed in other health Centre would be very helpful because most times the students are sent to Hospitals without proper records hence delay treatment in emergency cases.*

4. the academic department

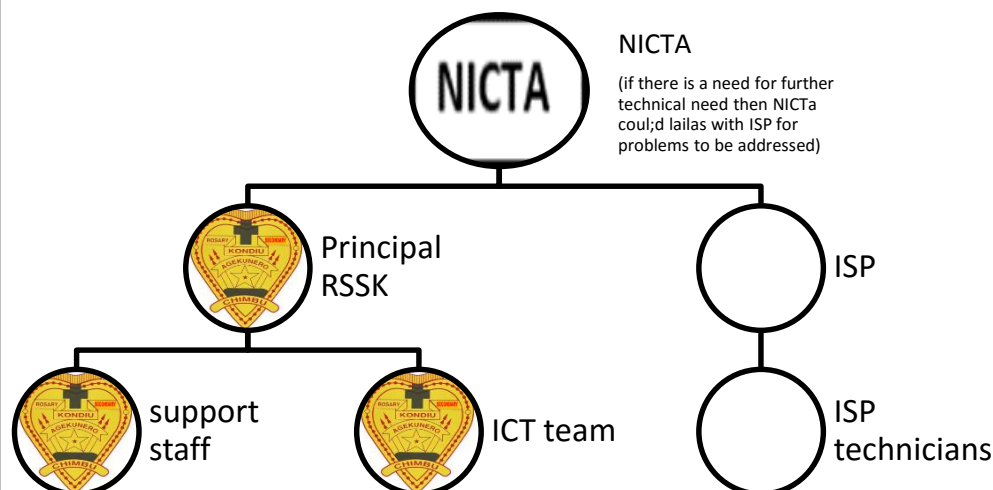
The largest and the most important department in Rosary Secondary School is the academic department consisting of student and teacher. This is a list of the impact that this proposed project would have:

- *Better and latest up to date information for the teacher to teach.*
- *Students could access eBooks on line and be self-taught.*
- *Both students and teacher could do eLearning while on the school ground to upgrade their papers.*
- *The school would setup a Wi-Fi system connecting every computer in school. The teachers' computer lab, the students' computer lab, the e-Library and laptops and computers and smart*

	<p>phones in school.</p> <ul style="list-style-type: none">• The school will also do e-Library for it students and teachers. At the moment we have 10 computers as an e-Library setup and would be looking forward for a bigger setup to a centralized server.• Our students could comfortably fill in their school leavers form online in the school campus for universities and colleges with the expert guidance of their teachers. <p>For The Entire Community in general would benefit in several areas:</p> <ul style="list-style-type: none">• Health- since health centers are a far distance from them they could call for ambulance during emergency cases. On Wednesday 01st March 2019 we had a case where a mother had a miscarriage. In the late afternoon in Gor village the husband and the first born son (gr. 9 student in RSSK) made a stretcher from tree branches and vines and ran nonstop to Mingende Rural Hospital which took almost one hour thirty minutes. Should the signal be better they would call the ambulance to come but the mother was fortunate she had strong men in her family.• Economy growth- The community would sell their produce nationwide or should there be an opportunity go international on online marketing.• Security- The community are very thought people in Simbu and are always fighting against themselves resulting in loss of lives properties and basic shelter. With better network coverage police would be told that there is a situation where two tribes are having conflict so peace would be maintained.				
Project Benefits	The benefits will be life changing to the schools and the community at large and the surrounding villages. It would benefit the current population and the future generation to come the proposed project is here to stay for a long time.				
Partner organizations/institutions (if any)	Rosary Secondary School- Kondiu is an Agency School. The Catholic Church works in partnership with the government to deliver quality education to the people of Simbu and the other good Papua New Guineans' Children who have served Simbu for many generations. This year 2019 is the 50 th year of RSSK being in existence serving PNG and it is looking forward for the next 50 years to come.				
Milestone(significant phases of the project)	The most significant part of this project would be network coverage in the school and the surrounding community at large. Once this proposed project is approved the and it is constructed. It is here to stay and serve all Papua New Guineans already in existence and the unborn.				
Expected output	The project is expected to bring better network connection and change the lives in Education, Health, Economic development and Security. 100% coverage and upgrade of the network for now and the future.				
Project Risks	<div>What are the risks to the Project? How will they be overcome or managed? (See management table)</div> <table><tr><td>Risk -List all possible risks you can think of</td><td>Consequence 4 – Extreme 3 – High 2 – Medium 1 -Low</td><td>Probability 4 – Almost certain 3 – Likely 2 – Positive 1 - Unlikely</td><td>Risk Management/Mitigation plan</td></tr></table>	Risk -List all possible risks you can think of	Consequence 4 – Extreme 3 – High 2 – Medium 1 -Low	Probability 4 – Almost certain 3 – Likely 2 – Positive 1 - Unlikely	Risk Management/Mitigation plan
Risk -List all possible risks you can think of	Consequence 4 – Extreme 3 – High 2 – Medium 1 -Low	Probability 4 – Almost certain 3 – Likely 2 – Positive 1 - Unlikely	Risk Management/Mitigation plan		

	Lack of political or administrative support	Low	Unlikely	Since the Tower proposed would be on RSSK school ground documents will be set in place for the school Administration to give full support.
	Land not secured	Low	Unlikely	The land is owned by the Catholic Mission/ RSSK.
	Security	Low	Unlikely	The tower would be fenced and security guards will be engaged to secure the tower by the school security.
	Project Equipment Personalized	Low	Unlikely	The equipment will be administered by RSSK but the entire surrounding community and the school itself will safe guard the project.
	Lack of community support	Low	Unlikely	The school community are all for the idea that all areas will receive signal. It is a mode of communication that would connect this isolated community to the world.
	Maintenance & recurrent costs	Low	Unlikely	RSSK would try it's best to Maintain the tower from its workshop department, provided that the support staff are in-serviced on how to maintain. NICTA and the school could further talk about recurrent cost.

Reporting Procedure



Linkage to existing Government development policies

This proposed project of a cell tower would contribute meaningfully to the development of the Papua New Guinea. The elites of this nation have a goal in mind and had envision that this country will be better than today in plans such as Medium-Term Development Plan III (2018-2022) (MTDP III (2018-2022)), NICTA Strategic Planning Report (2018-2022), National Broadband Plan 2014 and Vision 2050 just to name some.

According to the MTDP III (2018-2022) section 4.3 the government is focusing on upgrading The deteriorating conditions of transport, energy and slow progress on expansion of ICT Infrastructure. RSSK is making that plan to come through by identifying the ICT problem on ground thus informing the government department responsible for the expansion and development of the ICT infrastructure NICTA. RSSK believes that the cell tower with upgraded coverage will decrease unemployment in the community by engaging people in formal jobs and informal as well on line. Educate the increasing population of PNG who are attending this institution to an up to date technology world. Hence, in the long run the proposed project will generate internal revenue promoting economic growth for the country. So basically RSSK needs the cell tower and NICTA needs to further expand and upgrade its services for PNG, hence it is a win-win for both parties and for Papua New Guinea.

NICTA has strategically planned to cover the uncovered area by doing public consultation and RSSK feels as though it falls under the Indicative Project Area category of Program 01: Mobile broadband Expansion and Upgrade. For Greenfield Kondi makes up some fraction of the 11.84% of Simbu that is uncovered. For upgrade to 4

G the Kondi Community make up a huge population of 18,187 out of the 139,066 population of 4G Uncovered Population. RSSK is seeking NICTA's help in bring an effective coverage to this underserved area as well as a request of upgrade of the existing mobile network by building a cell tower.

All in all, this proposed project cell tower will bring MTDP III (2018-2022) plan come through. It will also make NICTA Strategic Planning Report (2018-2022) come steps closer to its goal. Above all it will be like a dream come through for RSSK, the

	<i>surrounding schools and community, communication and other services made easier, in short Life Changing.</i>
Financial Support	<i>Rosary Secondary School-Kondiu has a budget of K40 000 in place for the cell tower project. The school will also try its best to secure some funds from the office of the Local Level Government and the Provincial Government. Within the remaining weeks before the project commences and will inform NICTA as soon as possible.</i>
Sustainability of Project	<p><i>Rosary Secondary School- Kondiu Administration guarantees to take 100% ownership of the proposed tower. They will support the sustainability of the project by providing security after the cell tower is constructed and electricity to keep the tower running. Should there be need for the upgrade and running of the tower then immediately the school will follow the reporting procedure. In the same line the school would proposed a MOU being made with NICTA for the sustainability of the project. The budget of the school that is under the maintenance grant given by the provincial government could support the sustainability of the project.</i></p> <p><i>The project will develop this part of the Kerowagi District, Simbu Province and Papua New Guinea in many ways, however I would like to bring to foremost development that the cell tower is going to do:</i></p> <ul style="list-style-type: none"> <i>i. The result of this project will bring The key objectives number one(i) and six (vi) of the MTDP III 2018-2022 Executive Summary come through by “Increase the internal revenue on a sustainable basis to secure sufficient resources from domestic tax collections, non-tax revenues and export earnings” and “Support provinces and districts to generate sustainable internal revenue” There is a great opportunity for potential renewable resource and value added economy of agriculture and livestock in this part of the highlands(pg,16 3.2.2 Opportunities, MTDP III 2018-2022) NICTA will make this plans and visions come through.</i> <i>ii. The second Key Objective(ii) in the MTDP III Executive Summary is “Increase training, capacity and employment opportunities for PNG citizens;” Rosary Secondary School is the training ground for youths in all socio-economic background with this project it will create a competent work force that the government is planning on page 16 3.2.2 Opportunities topic one “Human Resource”.</i> <p><i>The project will do far more then bringing better upgraded coverage for this underserved area.</i></p>

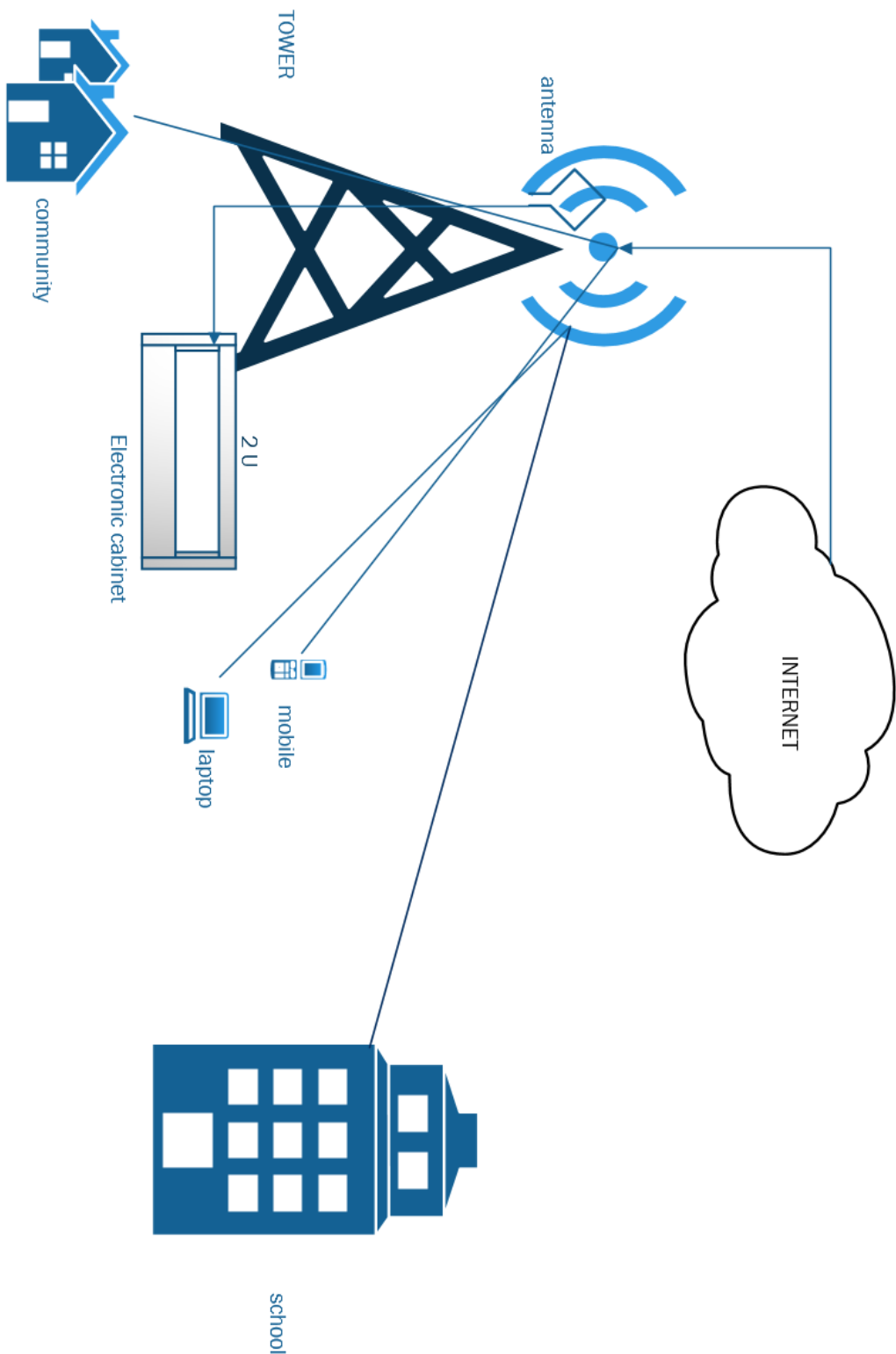
The proposed implementation project of the cell tower will follow this implementation plan:

DATE	PERIOD	PLACE	MISSION
<i>1st August</i>		<i>ISP office</i>	<i>Date of project initiation</i>
<i>1st-3rd August</i>	<i>3 days</i>	<i>ISP office</i>	<i>Project planning</i>
<i>4th-5th August</i>	<i>2 days</i>	<i>From ISP ware house to Kondiu</i>	<i>Transportation of material to sight</i>
<i>6th- 19th August</i>	<i>14 days</i>	<i>Kondiu, Blue</i>	<i>Ground works or</i>

		Mountain	setting the foundation
20 th -21 st August	2 days	Blue mountain	Fencing of equipment
22 nd -23 rd August	2 days	From RSSK school ground to Blue Mountain	Connection of power source
24 th - 25 th August	2 days	Blue mountain	Shelter structure or Electronic cabinet
26 th -30 th August	5 days	Blue mountain	Tower building
31 st - 2 nd September	3 days	Blue mountain	Antenna setup and lift it off the ground attaching it to the tower pole.
3 rd -4 th September	2 days	Blue mountain	Feeders Connecting outdoor feeder and jumper and installing the feeders and ground it. Connect the outdoor feeder and jumper to the indoor
5 th -9 th September	5 days	Blue mountain	Test run the tower.
10 th September	1 day	Kondiu School Ground and cutting of the ribbons at Blue Mountain.	Open of the cell tower.

Nb: The costings of this proposed project is not attached because the ISPs required a lengthy process for it to be obtained and RSSK was made known of this project writing about two weeks ago. Hence, the institution is leaving it to NICTA to contact them for the costings, that is the reason we have the highest possible maximum cost.

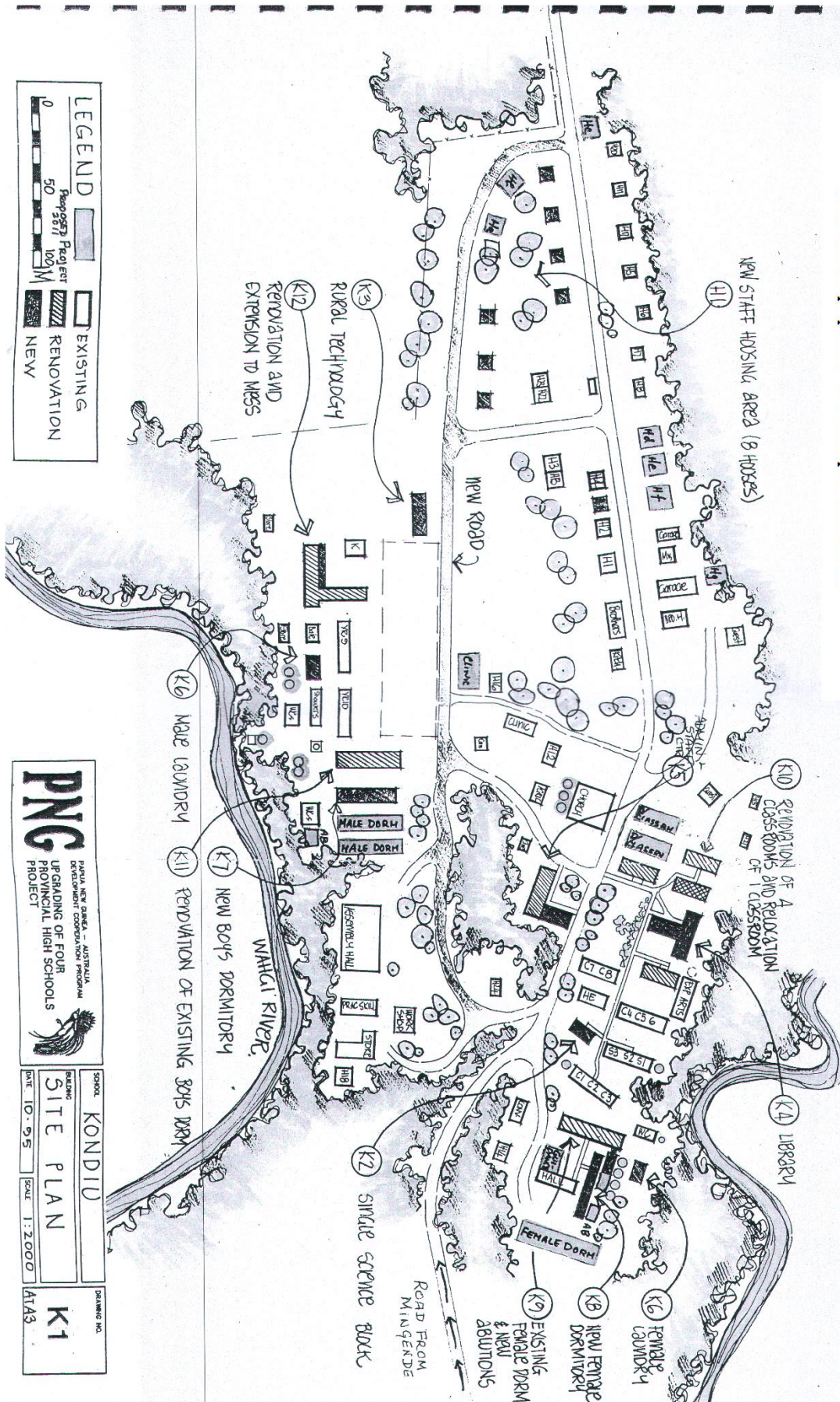
Design and schematics



NB: diagram not drawn to scale

Blue Mountain

nb: the tower is proposed to be located upon this mountain.



PNG PAPEA NEW GARDEN - AUSTRALIA
PARADISE COAST COASTAL PROGRAM

**UPGRADING OF FOUR
PROVINCIAL HIGH SCHOOLS
PROJECT**

KONDIU

SITE PLAN

K1

DATE: 10-95 SCALE: 1:2000 DRAWING NO: AT43

Types of Projects That May Be Proposed

Program 01: Mobile Broadband Expansion and Upgrade

Under this program, the type of project that can be proposed are;

- Extension of broadband mobile services to unserved and underserved areas
- Upgrade of 2G network (voice + data) to 3G/4G network and
- Increase network backhaul capacity to cater for the increase traffic due to expansions and upgrades

Program 02: Community and Institutional Broadband Networks

The type of project that can be proposed are;

- 1) Broadband Network Access and Service
 - Expansion of national backbone network infrastructure:
 - Establishment of local broadband access network connections
 - Provision of public broadband communication services
- 2) Institutional Connectivity – Education, Health Facilities, Local Government Offices, Agriculture Centers
- 3) Community Information and Communications Technology Centers (CICs)
 - CIC construction, equipment, installation:
 - CIC operation and management:

Program 03: ICT for Future Growth

Type of projects that can be proposed are;

- 1) ICT Applications and Content
 - Original and translated web sites and other materials presented in local, indigenous languages, highlighting information of greatest interest to populations who speak these languages.
 - Information content made specifically for and by local community users, sharing local knowledge, history, and culture, as well as business and government information, ideally developed by local users themselves.
 - Projects focused on graphic interface, audio-video, and other non-written content aimed at engaging and assisting non-literate users; similar applications and content for disabled or uneducated users.
 - Entrepreneurial ventures focusing on creating innovative applications for mobile and smart phones, tablets, and other new devices.
- 2) Digital Literacy
 - Training classes and workshops
 - Public relations and awareness building programs
 - Entrepreneurial assistance and incubation initiatives
 - ICT applications and content development programs
 - Community-based technical support resources
 - Public administration training and application development

Program 04: Expansion and Upgrade of Broadcasting Network Coverage

Type of projects that can be proposed are;

- Expansion of free to view Digital Broadcasting (TV) Services to unserved areas
- Upgrade from analogue free to air broadcasting services to free to view Digital broadcasting services (TV)
- Expansion of free to air Radio broadcasting services to the unserved areas

Indicative Project Areas

Program 01: Mobile Broadband Expansion and Upgrade.

- Indicative project areas for 4G greenfield and Upgrade from 2G are prioritized from the maximum unserved population to minimum unserved served

- For Greenfield**

Region	Province	Uncovered Population	% Uncovered Population
Momase	Morobe	141,349	20.95%
Momase	East Sepik	118,238	26.24%
Southern	Milne Bay	94,946	34.34%
Momase	Madang	90,542	18.33%
Highlands	Eastern Highlands	89,936	15.51%
Highlands	Southern Highlands	85,300	16.72%
Momase	West Sepik	83,487	33.61%
Highlands	Enga	79,803	18.47%
Southern	Western	72,464	35.99%
Southern	Central	58,412	21.65%
Highlands	Hela	55,413	22.21%
Southern	Gulf	54,846	34.67%
Islands	East New Britain	52,257	15.91%
Islands	West New Britain	51,129	19.35%
Islands	Bougainville	48,644	19.51%
Highlands	Chimbu	44,576	11.84%
Southern	Oro	36,802	19.75%
Highlands	Western Highlands	35,232	9.71%
Highlands	Jiwaka	33,615	9.77%
Islands	New Ireland	29,314	15.11%
Islands	Manus	10,797	17.85%
Southern	National Capital District	878	0.24%

- For Upgrade**

Region	Province	3G Upgrade Uncovered Population	% 3G Upgrade Uncovered Population
Highlands	Eastern Highlands	291,003	50.19%
Momase	Morobe	240,062	35.57%
Momase	Madang	223,138	45.18%
Momase	East Sepik	148,575	32.98%
Highlands	Chimbu	139,066	36.94%
Highlands	Enga	122,332	28.31%
Southern	Milne Bay	113,122	40.91%
Islands	Bougainville	112,430	45.09%
Momase	West Sepik	91,195	36.71%
Islands	New Ireland	85,574	44.10%
Southern	Central	78,045	28.93%
Highlands	Southern Highlands	76,121	14.92%
Southern	Western	72,357	35.94%
Southern	Oro	71,628	38.45%
Highlands	Hela	70,872	28.41%
Islands	West New Britain	58,639	22.19%
Southern	Gulf	56,184	35.52%
Islands	East New Britain	54,012	16.45%
Highlands	Jiwaka	49,730	14.46%

Islands	Manus	27,966	46.24%
Highlands	Western Highlands	14,066	3.88%
Southern	NCD	0	0.00%

Program 02: Community and Institutional Broadband Networks

- The target project areas are learning institutions, local government institutions, local healthcare facilities and community base set ups who are ICT ready such as;
 - ✓ Universities
 - ✓ Colleges
 - ✓ Technical and Vocational Schools
 - ✓ National High Schools
 - ✓ Primary and Secondary Schools
 - ✓ Private/public setups
 - ✓ Villages/communities

ICT readiness refers to the basic infrastructure that the institution must have such as reliable power, ICT teachers, funding to help sustain, rooms for computers among others.

Program 03: ICT for Future Growth

- Target project areas include;
 - ✓ Universities with content creation programs/projects
 - ✓ Technical Colleges with content creation programs/projects
 - ✓ Local entrepreneurs with content creation programs/projects

Program 04: Expansion and Upgrade of Broadcasting Network Coverage

- The target project areas include;
 - ✓ Unserved free to view (Digital Television) services areas in PNG;
 - ✓ Unserved free air Radio Broadcasting Services in PNG