

Assessing the Communication Gaps between the Papua New Guinea National Volunteer Service, its Network of Skilled Volunteers and Hosting Rural Communities in Kerea and Kintunu villages in Papua New Guinea

A thesis submitted in fulfilment of the requirements for the award of Masters of Applied Practice (MAP), a research project focused on Melanesian ethnic group in assessing communication gaps in partnership with the Faculty of Te Miro Interdisciplinary Studies Unitec, Auckland New Zealand.

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Abstract

This project emerged as a response to problems experienced in Papua New Guinea by the National Volunteer Service (NVS) when they needed to communicate with their village-based volunteers. Two of the villages that the NVS had the greatest difficulty with were Kerea and Kintunu, and so these two communities were selected for this study.

A qualitative approach was chosen so that emphasis could be placed on research methods compatible with indigenous Melanesian culture. The data gathering techniques used were interviews, storytelling, observations, questionnaires and focus groups.

In Kerea village all five methods were used but in Kintunu, only the first three could be **successfully employed due to the large geographical area of this village.**

The findings showed that lack of adequate communication caused a wide variety of problems, both for the villagers and the volunteers. These ranged from being unable to call for urgent medical assistance and difficulties in marketing village produces.

Finally, the recommendations prioritise the need for a more effective mobile communication supply and stress how a more reliable communication system can help to sustain the Melanesian way-of-life and improve the standard of living in rural PNG.

CHAPTER 1: INTRODUCTION and CONTEXTUAL BACKGROUND



Figure 1: Map of PNG lonelyplanet.com Scale: 200 Km / 120 Miles -

1.1 Introduction

Papua New Guinea is a developing Melanesian country located in the Pacific region with an estimated population of 8 million. The country gained its independence from Australia in 1975 without any conflict or resistance. 85% of the population live off the land in the rural areas of the geographically challenged country, depending on subsistence agriculture to sustain their livelihood. Still half of the adult population are illiterate with isolated rural pockets where the percentage is higher. The indigenous people speak more than 800 different languages including Pidgin and English and have unique and diverse cultures and traditions. Papua New Guinea maintains a Westminster style of government and is a member of the Commonwealth and other international organizations such as the United Nations (UN) and the Asia-Pacific Economic Community (APEC).

As a proud Melanesian, I hail from a rural village, near Goroka town in the Highlands of Papua New Guinea. My village is located approximately one-hour drive on a dirt bumpy road from

the nearest town Goroka. During wet season the dirt road would become slippery and it would take two or three hours to reach Goroka town, as the passengers would be pushing and pulling the truck on a dirt muddy road. By air transport, it would take nearly one hour to reach Goroka town from Port Moresby.

I was born into a subsistence farming family and around the age of seven or eight my parents enrolled me to attend year one at a primary school in a neighbouring village. I usually walked barefoot one and half hour from my village to the school and return back home on the same route on a slippery bush-track. Meanwhile, I successfully completed my primary education and progressed on to correspondence school and eventually completed my high school education.

After working for some years as a volunteer community development worker, I secured an Australian Aid (AUSAID) scholarship and attended the South Bank Institute of TAFE in Brisbane Australia, and graduated with a Diploma in Community Service (Community Work) in 2003. Equipped with a Diploma I secured a senior position with a big referral hospital in Goroka and worked as a senior social worker with the hospital.

While working in the hospital, I applied for NZAID Development Scholarship, my scholarship application was successful, and I did my Bachelor in Social Practice majoring in Community Development at Unitec, Waitakere Campus in 2009. I successfully completed my Bachelor in Social Practice majoring in community development and graduated in absentia in 2012.

In 2013, I applied and secured a senior programme managers' position with the National Volunteer Service (NVS). I faithfully served the National Volunteer Service organization for a period of four years. While serving the organization, I realized and experienced that we could not maintain regular contact with some of our volunteers serving in the hosting rural

communities due to lack of reliable communication services in the rural areas. Therefore, the experience of communication problems has driven and motivated me to investigate the nature and implications that is hindering and creating communication gaps between the National Volunteer Service, the volunteers and volunteer hosting rural communities.

I am very privileged to secure another NZAID scholarship for a second time and doing my Masters of Applied Practice (MAP) at Unitec, Mt Albert Campus. Subsequently, I have conducted the qualitative research study in two disadvantaged volunteer hosting rural communities, and I have collected data and analysed the research findings to present it to Unitec and NVS management for deliberation. Most importantly, it is hoped that the outcome of this research study will be of significant value and benefit to the National Volunteer Service management and its stakeholders.

Through an Act of Parliament in 1990, the National Volunteer Service (NVS) scheme was established as a government service delivery agency and attached with the Ministry of Women, Religion & Community Development. The core purpose of establishing the organization by the national government was to re-deploy the retired public servants and recruit new skilled volunteers to place them in the rural communities. The programme was tailored for the skilled volunteers to share their skills and experiences to empower the rural people to become self-reliant, promote social change and development in their rural communities. The provision of community volunteer engagement programme was targeted to deliver essential services to the isolated rural communities and outer Islands of the country through the placing of skilled volunteers (National Volunteer Service, 2016).

1.2 Volunteer Recruitment & Pre-Service Training

The organization bi-annually recruits qualified local and international volunteers and places them in the volunteer hosting rural communities. The range of volunteers are recruited from various field such as community health workers, youth development workers, agriculture extension officers, eco-tourism officers, fisheries officers, adult literacy teachers, village elementary school teachers, animal husbandry officers and other skilled volunteers. The recruited volunteers serve in the hosting rural communities for a fixed term of two years and currently 30 volunteers are serving throughout the country (National Volunteer Service, 2016).

The provision of community volunteer engagement programme is a joint programme between the NVS and the hosting rural communities, who are encouraged to participate in decision making on what skilled volunteers they want to host in their community to serve their specific needs (White, 1999). In this arrangement the NVS does not dominate and dictate for the rural communities; through effective consultation with the communities the organisation facilitate and recruit the volunteers required by the communities. In other words, the communities identify their service needs and request NVS to recruit skilled volunteers to serve their specific needs.

For instance, if a potential volunteer hosting rural community identify their needs to host a village birth attendant, the community leaders and representatives of the communities would come to NVS office for consultation. After the consultation and reaching a collective understanding on the volunteer placement. NVS would advertise in the newspapers to recruit an experienced village birth attendant in order to place the volunteer in the community that requested to host the village birth attendant.

With colleagues at National Volunteer Service Office Port Moresby 2018



The organization employs eighteen full-time staff members including the thirty skilled volunteers, who are now on the ground serving in the rural communities. The organization annually gets budget support from the national government to sustain its mandated community based programmes. **The NVS is a government agency and its office is based in Port Moresby. Other volunteer service organizations in the country include church and community based as well as international ones such as Oxfam, VSO, VSA.** However, due to workload and demand, NVS is planning to establish regional offices in selected provinces in the country, in order to effectively coordinate and manage its operations in the country (National Volunteer Service, 2016).

This picture shows one of the volunteer group training held in Kokopo, Rabaul PNG in 2016



"Volunteering is a noble profession, that generous people sacrifice their time, resources and skills to support others to help themselves for free or for minimal material gain" (Woods, 1999).

1.3 Challenges in Maintaining Communication Contact

NVS has deployed the volunteers throughout the country through the provision of rural community volunteer engagement programme since 1990. The NVS could not maintain regular contact with some of the isolated rural communities and outer Islands that host the skilled volunteers, due to lack of communication services. The two identified rural communities that are unable to maintain contact are Kerea village in Kairuku district and Kintunu village in Bena district PNG. These two communities are worst affected because

communication reception is very poor and this has been found by NVS to greatly affect the volunteers' work in their hosting communities. If the volunteers want to contact NVS office to seek, help or relay messages the volunteers have to walk up a mountain-top or to a designated area to access the communication reception in order to make calls on their mobile phones. Sometimes during bad weather and when communication reception is problematic there would not be any communication reception at all, a complete breakdown can last for as long as a month before the problem is resolved. The volunteer who is placed at Kerea village has a Be-mobile phone, which is provided by a local government entity Telecom company, which does not have many subscribers.

Also, the local Be-mobile company does not have a wide network and reception coverage in the country, but the volunteer uses Be-mobile phone because Be-mobile reception is available in the village. The volunteer is able to access communications reception at a designated place in the village to make calls or receive calls.

In PNG, various mobile companies are operating such as Be-mobile, Digicel, Huawei and Vodafone. Digicel mobile company has a large number of subscribers in PNG, but does not have a reception coverage in Kerea village. When the communication reception is available from the mountaintop or from a location where the volunteer could access, the alternative network can be used.

Because of unreliable communication services, NVS could not maintain regular contact with the volunteers in Kerea and Kintunu villages. Overall, the general situation is not conducive for the rural people to enjoy a better lifestyle, due to poor essential basic services and infrastructure such as communication services, road and transport systems, run-down primary village schools and health services.

These two rural communities are targeted in this research study in order to assess and find out the nature and implications, why mobile communication is not accessible in the two communities. Therefore, the participatory research study has applied ethnography and communicative ecology research tools and methods relevant to Melanesian context to assess the communication gaps between the NVS, its network of skilled volunteers and volunteer hosting rural communities (Vallance, 2017).

The Unitec Research Ethics Committee has approved the ethics application of the research in September 2018. The proposed research study was thereafter conducted effectively while complying with the Unitec Research Ethics Committee guidelines 2018.

1.4 Building on the Relationship with Volunteer Hosting Rural Community

PNG is a diverse country with 800 different languages and cultures, the general situation of the people varies from province to province or place to place. Therefore, as a new person and outsider I have to understand the village protocols, common body language and common catch phrase or language I could use in order to integrate myself well into the community. Although, we all can speak the common Pidgin Language, however, there is more to it, as people's cultures, customs and situations are slightly differing from each other due to geography. Therefore, in the afternoon after dinner I asked the volunteer about village protocols and common catch phrases in their local dialect that I could use when meeting village people during my stay in the village. The volunteer gave me a few tips, catch phrases and protocols that I apply while interacting with the participants and the villagers.

For instance, some of the village protocols like getting gifts from people with both hands and not to stare and talk to a married young woman when she is alone.

I am from Goroka, in the Highlands of PNG and one of the research site, Kerea village is in the coastal area of the country. Therefore, learning community protocols, common catch phrases and building relationship with the people and leader would be an advantage to integrate into the community. On the other hand, establishing myself with the village would have been an easier process, if I had a relative living there through marriage or migration giving my connection to that community, a different meaning.

Nonetheless, the relationship and rapport I develop with the village is through the volunteer and the village leader. I relied upon and work collectively with the volunteer and the village leader to conduct the research. While in the village, I shared, interacted and established a friendly relationship with the leader and the people. At the village market place and in other communal areas of the village, I usually go around, greet people, buy food at the market place, and share with the people who accompany me around. It was indeed a good lifetime experience and a challenge living and working with people from different cultures and traditions. All this was not to overwhelm my objectivity with my research, but allow different spaces for critique, as I will describe the confirming of the community's participation further on.

1.5 Kerea village: A community profile and social map

Kerea is a small village located near the border between Gulf province and Central province. The highway literally runs near the village and it took us nearly three hours by truck to reach the village from Port Moresby. The area has good fertile land and the people are engaged in large-scale farming to supplement and sustain their living. The staple food in the village is banana and sweet potato, with supplementary crops such as corn and a variety of vegetables sprout in that area. The daily activities of the people are farming, fishing and hunting. The

people live by bartering foods and helping each other by collectively building houses or making gardens. For instance, through bartering, the people from the mountain would gather wild fruits and nuts and give it to the coastal people and the coastal people would catch fish and give it to the in-land people. The people clearly maintain a reciprocal way of living.

Public Motor Vehicle (PMV) often commute to and from Kerea village helping the village people and farmers to transport their cash crops to the main market. Because the transport and road infrastructure are accessible in the area and the people are engaging in economic activities such as cash crop farming. There is a small-unmaintained bumpy road connecting the village from the main road, making it easier for the people to transport their cash crops and produces to the main market.

The population of Kerea village is approximately 900 and the people speak the Motu language. The village is headed by a village chief and usually leads the community in village obligations such as bride price, funerals, rituals, bartering and other indigenous activities and ceremonies. The chief can talk on behalf of the people and can influence decisions in the community. In Kerea, there is a village mediation group composed of a village court magistrate, a women's representative and elders who mediate and resolve disputes and differences to make peace in the village.

The general life situation of the people is very simple, money is not everything the people need to survive; the people have abundant garden foods to sustain their living. When the people need protein they catch fish from the river and if they need cooking oil the people pick coconuts and make oil. Like other Papua New Guineans, the people are living off the land through subsistence farming. As a researcher from the Highlands region, I enjoyed and experienced the situation of the people at Kerea village with great satisfaction.

Malinowski (1984, p. 37) stated that the “authority in the tribe, as in many others, is vested in the village elders”. “In each hamlet the eldest man has a position of personal influence and power, and these collectively would in all cases represent the tribe and carry-out and enforce their decisions. The deeper sociological study and understanding would reveal the characteristic of totemism and rituals of the natives of New Guinea, and the matrilineal construction of their society. Descent, inheritance, and social position follow the female line, a man always belongs to his mother's totemic division and the local group, and inherits from his mother's brother” (Malinowski, 1984, p. 37).

In my community or tribe, both matrilineal and patrilineal are equally eligible for genealogy possession inheritance. However, in some tribes of the country genealogies inherit from either matrilineal or patrilineal side (Malinowski, 1984). For example, in Bougainville Island females inherit the land and all the genealogy possessions and the females make decisions on genealogy wealth and share the genealogy possessions including land with their male siblings. Therefore, women also have status in the community and enjoy a very independent position, and are exceedingly well treated, and in tribal and festive affairs, they play a prominent role. “Some women, even owing to their magical powers, hold considerable influence in the community” (Malinowski, 1984, p. 37).

In Kerea, village matrilineal inheritance from genealogies is widely practiced and is part of the people's culture and tradition that will be passed on for the next generation. The volunteers' mother is from the neighbouring village and the volunteers' uncle has offered two pieces of land to the volunteer through the matrilineal inheritance system. As a result, the volunteer has two gardens in his mothers' land.

In Kerea village, the people usually build semi-permanent houses on stilted posts to avoid flooding, snakes and other animals from invading their houses. The community does not have an electricity supply and relies on solar panels to light-up their houses. In the village people depend on each other and help each other to solve community problems and issues.

After two days in the village my escort and I go around the community and conducted the social mapping of the village, we visited a primary school, village elementary school, united church, SDA church, a village market place, a big river and a man-made lake and surrounding vegetation of the village. The journey took us three to four hours to conduct the social mapping of the village.

Finally, we came to a new camp or village that was built after a recent flood destroyed the old village, food gardens, vegetation and domesticated animals. The escort boy told me that because of the flooding the people move up to the higher-ground to avoid future flooding from happening again. The affected people are from the volunteers' village Kerea and I enquired to know more, if any human lives have been claimed by the river in previous flooding and the escort boy told me that the river has claimed more people.

This area map shows the Port Moresby City and Kerea Village



This is one of the meeting sessions held in the village with community elders and participants at Kerea village, Kairuku District, Central Province and on the right is the volunteer and his wife.



The big river is flowing in the middle, villages were built on either side of the river, and the people use canoes to ferry their cargoes to either side of the villages. The river is very useful for people's daily living. The people use the river for drinking, washing; fishing and the people use the river as a means of transportation to row timbers from the mountain forest to the

villages to build houses. The river system is very convenient and serving the multi-purpose needs of the people in every aspect of their livelihoods.

1.6 The Communicative Ecology & Social Network of Kerea Village

One night I woke up around 4.00 am to the sound of people packing their vegetables to take it to sell at the main market in town. The people were packing and loading their vegetables at the roadside while waiting for the Public Motor Vehicle (PMV) to take them to the market.

Around 5 am in the morning, I walked down to the roadside to see what the people were doing and making sound and I realized that the people were waiting with their cargos and vegetables to get on the PMV truck. I saw piles of green banana and pumpkin bags lying on either side of the road. While at the roadside, I meet two young boys who were helping their parents and they told me that the bags of banana would fetch them good money. Because the demand is very high and a single bag will be sold for K100 equivalent to 50 New Zealand dollar. The family had packed three bags of green banana and two bags of pumpkins to take it to the main market in Port Moresby city.

It is normal that while at the market, the women folks would gossip, tell stories, and interact with other people and share information. The people would also listen to radio news and announcement from the council workers at the market and literate people would buy newspapers to read in the village. When people are exposed to urban towns, they learn new things and access new information to make informed decisions.

In Melanesian culture and village, everyone is related, whether they are a brother, an uncle, a grandfather, a son, a daughter, a mother, or a distant relative by marriage. One of the most essential elements of Melanesian society is its close human relationship and giving and taking

is an integral part of Melanesian society. Cooperation and mutual support, especially in times of need and crisis, are part of the living experience (Vallance, 2007; Narokobi, 1983).

Therefore, in Melanesian culture people help each other without expecting any material gain. For instance, in Melanesian village, whenever a person needs food, firewood, water or help in building a house, they will freely ask for help from relatives. The person who is seeking help will only provide food for the people who are helping him/her. The person who is been helped will help the people who helped him in the future if they need help. It is a type of reciprocity or exchange (Vallance, 2007; Narokobi, 1983). Therefore, in village situations people share and help each other by promoting and maintaining resilient way of living (Narokobi, 1983).

For example, while I was in the village, there **was the death of a woman on the other side of** the river and the next day the surrounding villages gather raw garden food and contribute money to take it to the dead woman's village to support the grieving families of the dead women. Two days later the husband of the dead woman brought their four-year-old boy for treatment to the volunteers' house and the volunteer treated the boy, and after the boy and his father returned to their village, the volunteer told me that the boy is the dead women's son.

Naturally, the village people communicate with each other verbally where-ever they meet, such as at market place, church, school ground, funerals, wedding ceremonies, fishing, hunting and in other social gatherings in the village. Communicating and sharing information in their environment and context binds the people together in order to maintain a sustained lifestyle.

In rural villages new information flow through influencers such as community elders, village councillors, schoolteachers, volunteer and other people who have access or exposed to the

outside world. Those influential people access new information and disseminate it to the rural people. The people also access new information from mass media, announcements and via community radios that transmit information to the rural community people.

The people have no other mediums to use to communicate, because of poor communication reception service in the village; therefore, the people use face-to-face communication with their families and friends. Skuse, Fildes, Tacchi, Martin, Baulch (2007) stated that communication service can act as a catalyst for change in “marginalised” (p. 5) communities and that we must work towards suggesting solutions to the communication problems through the research involving the local people. This approach is not only to focus on the communication problems, but to value and utilize local knowledge as local knowledge is "location specific, value laden and does not exist in a vacuum, but in social, historical and cultural context" (Gegeo & Watson-Gegeo, 2001, p. 381).

1. Kintunu village: A village profile and social map

Kintunu village is located three hours' drive from Goroka town towards Lae City. The population of the village is approximately 1400. Like other people in PNG, the Kintunu people live by subsistence farming. The soil is not conducive for vegetable farming and the people rely on coffee and other income generating projects to supplement their living.

The people at Kintunu live in small hamlets in family units; the community do not have a big village, like other typical PNG villages. In order to discuss community issues the people usually gather at the village sporting field to discuss and resolve issues. The village has a mediation team composed of village councillor, village magistrate, community elders, church leader, a youth representative and women representative that intervene to resolve conflicts and community issues to maintain a resilient community.

The village maintains a matrilineal system of inheriting genealogy possessions and women are regarded as equal partners in nurturing children and maintaining peace in family institutions. For instance, one Sunday during church service in the village, I observed females taking the leading role in all the church programmes and activities, as this is not typical and usual in other village churches.

The volunteer, Charles Ghate, is a youth development worker who usually mobilises village youths and engages the youths through inter-village sporting activities in an attempt to provide an alternative to illegal activities that they might otherwise engage in. It is an annual activity and through the volunteers' effort, some young people from the village have represented the country in various sports.

In PNG, inter-village sporting activities usually happen every weekend in rough and unmaintained village sporting fields. Sports like rugby league, soccer, volleyball, basketball and athletics are played in the village level. While in the village, I witness a women's volleyball game that was arranged by the volunteer. It was very entertaining and interesting to watch the game and the village women folks challenge each other in the village sporting field.

Out from all the sports played in the village, the volunteer Charles Gate selects the best players from the village and registers a team with Goroka town sports office in order for the selected players to play in the government sanctioned sporting activities/calendar. That is the process the volunteer is using to help the less fortunate young people in the villages to prosper in life through sports.

This area map shows Goroka town and Kintunu village



The above picture shows Kintunu village hamlet overlooking from the mountain

A typical Highlands village storytelling, discussing and listening gathering in session



1.7 Identifying the Cause of Communication Gaps

The National Volunteer Service have explained that they were unable to maintain direct contact with the volunteers in the two volunteer hosting communities. That was the core reason that motivated me to conduct a qualitative research to find out what is causing the communication gaps in order to suggest improvements. The two volunteer hosting rural villages Kerea and Kintunu were experiencing communication problems due to poor and unreliable communication reception.

In a case study in outback, Australia Holmes (1984) noted that communication deficiency posed a challenge and become an issue. The outback mail carrier, teachers, flying doctors, and bush pilots are famous figures that transform the outback rural areas. The overland telegraph line, radio transceiver network, correspondence school are woven into one element through the radio mast supported by a windmill.

Given the national commitment to improve communication systems in remote outback locations and the vast geographical context, Australia lags in adopting satellite-relayed international communication system. After delaying the satellite system for the rural outback it is recommended in all official statements to put emphasis on the system to up-grade communication services in the remote areas (Holmes, 1984). Adapting renewable energy from solar-hart, windmill, and hydro to generate power and installing reliable communication technology to enable communication flow are seen to be a great benefit to the impacted outback of Australia.

Likewise, the communication system and network in the rural areas of PNG are very poor and not readily available in some of the rural areas of the country as Holmes (1984) described rural outback of Australia in the late 30s and 40s. Taking into account the case study of outback Australia and applying it to the rural areas of PNG, the communication services will definitely improve. Because the rural areas have abundant natural resources to generate renewable energy from solar-hart, windmill and hydro to develop environment friendly reliable communication technology that will enable communication flow into the rural areas.

1.8 Research Conducted in Volunteer Hosting Villages

The research was conducted in two communities, Kerea village Kairiku district and Kintunu village Bena district Goroka. First, I travelled with the volunteer Mr Iruvi Idei to Kerea village, Kairiku district, on a public transport and the journey took us nearing two hours on a rough pothole filled bumpy road and on arrival, we meet the volunteers' family in the village. When I say, we travelled on a public motor vehicle (PMV) it does not mean we travelled on a comfortable bus on a smooth up-graded road network. In PNG, we get a ride on a truck with lots of cargoes and passengers crammed together while others will hang on to the side of the

vehicle to go to the village. The road infrastructure and transport systems in the rural areas are not good and effective like in NZ and you cannot expect to ride on a comfortable bus from the nearest town to the village or vice versa. It was a learning experience and I had a general body pain during the night because of the rough ride to the village on a public motor vehicle.

Prior to my research trip the volunteer has done publicity and awareness raising and consulted the village leader and the community members about the proposed research and they were expecting my arrival. The next morning the village chief announced and informed the villagers to congregate at the communal meeting place in the village. The people gathered in the centre of the village and the village chief formally welcomed me into their community in front of his people.

After the village chief welcomed me, I introduced myself and informed the people about the research intention, methodologies, duration of the research and the processes I will use to conduct the research on communication problems. All the people were excited and signed the consent forms and others made oral consent to participate in the research study. The methodologies employed during the research at Kerea village include observation, focus groups, interviews, questionnaires and storytelling. Through applying the observation method, I interacted with the people and observed their situation, how they relate and communicate with each other. In consultation with the village leader and the volunteer, I arranged storytelling sessions for everybody to share how communication issues are affecting their livelihood. For instance, the people could not maintain contact with their immediate families who live in urban centres and contact service providers or even the people could not receive new information through their mobile phones and other mediums of communication. I distributed questionnaires for literate people to fill in, while I personally interviewed the

illiterate people and village elders. Three focus groups were formed with equal number of genders in each group where they discussed communication issues. I was thus able to collect all the data from the methods applied at Kerea village. No amount of money was given for participating; the donations made were for accommodation, meals, transport and emergencies. All the participants take ownership to the research study and participated very well with no problems encountered during the research and even they did not withdraw their participation during the research.

After conducting the research at Kerea village, Kairuku for a period of two weeks I returned to the main city Port Moresby. I stayed in the city for few days doing photo copying, charging my mobile phone and laptop and download the photos from the mobile phone to the laptop.

The next day I departed for my next research site to Kintunu village, Goroka up in the Highlands of Papua New Guinea. I travelled by plane and the journey took me fifty minutes to arrive at Goroka airport.

Prior to my departure for Goroka, my colleague called the volunteer and luckily, the volunteer was in Goroka town and answered my colleague's call. My colleague informed the volunteer about my arrival to Goroka town and told the volunteer to come and wait for me at the airport. Upon arrival at the terminal, I meet the volunteer and we departed to his hosting village by public motor vehicle. The road journey took us nearly three hours and the truck dropped-us off at the side of the road. From the main road, we carry our bags and walk on the bush-track leading to the volunteers' village. It was very tiring as we walk for an hour from the main road to the volunteers' village. On arrival, we meet the volunteers' family and the village people and we greet each other.

The people in that community live in small hamlets or family units with up to five houses in a group. There is no big village like in other communities which have twenty to thirty houses build horizontally. The volunteer goes around the hamlets and inform the community leader and the people about my arrival and told them to gather at the village market place in the afternoon. In the afternoon the village market place was packed with villagers selling their vegetables and the village leader seek the attention of the people and welcomed me into the community. As soon as the leader finished talking, I introduced myself and explained the purpose of my research trip and how I will interact and engage with them during the period of my stay in the village.

The research was designed to be inclusive and participatory, therefore, the people take ownership of the research in both communities and the people participated as expected. In order to assess the communication gaps between the National Volunteer Service, its network of skilled volunteers and the hosting rural communities, I applied a Melanesian research approach that includes group storytelling and talking to a village leader. It is evident that the rural communities and the participants were serious in suggesting solutions to the communication problems and participated very well in the research (Gegeo & Watson-Gegeo, 2001). In Kintunu village I employ three research methods such as observation, interview and story-telling. While applying observation research method I observe the people through interacting with them in the village. Interview is another research method I use to interview the selected participants from the village. Story-telling is another research method or approach I also employ during the research in Kintunu village. In PNG context story-telling is very important because everybody including the marginalised and disable people will participate. In story-telling approach, the first person introduces and begins a story on a village issue or topic and the next person then takes over the story and contributes to it until

all the participants have made their contribution and reach a common understanding on the issue. Story-telling is a forum where the community collectively comes together to discuss community issues to foster a resilient way of community living. As a result, the research study has explored various implications and impediments that are creating communication gaps and hindering communication service flow into the disadvantaged rural communities. The data collected will be processed and presented through a thesis to the National Volunteer Service management for deliberation and to take possible action on the research findings.

Generally, from my discussions it became clear that the community's lack of communication service is having an impact on various community groups such as women's group, youth group, church group, teachers, farmers, volunteers and the community. Because the people could not maintain contact with wholesale buyers in town to sell, their vegetables and teachers could not maintain contact with their superiors to get school supplies. The church group also could not maintain contact with other neighbouring churches and congregations to facilitate church gatherings and programmes to serve the spiritual needs of the people.

Cruskin (2004) reported that human rights approach is inclusive and focuses on all aspects such as non-discrimination and equality, attention to vulnerable groups, participation, transparency, and accountability, empowerment, independence of the judiciary and human rights. It is noted that developing countries are struggling with poor infrastructure and services and facing devastating effects on sustaining services in those countries (Cruskin, 2004).

Therefore, compulsory basic infrastructure and services must be made available in developing countries for the people to access and improve their welfare and livelihood (Cruskin, 2004).

The rural people in PNG are deprived off from accessing basic services such as better road infrastructure and transport systems, basic health services, schools and other essential services. As a result, of lack of basic infrastructure and social services the rural people are living in poverty, people are dying from curable diseases and the illiteracy rate is increasing due to few run-down schools lacking facilities to accommodate the increasing rural population (World Bank, 2017). The trend of infant mortality and maternal mortality cases are increasing due to poor health services to control and manage the situation. The impacted rural communities have been silent without expressing their views on the communication problems and other compulsory services in any forum. The responsible government may have failed to develop and implement basic infrastructure including communication services in the rural areas due to lack of strategic planning and budget shortfalls (World Bank, 2017).

It is clear that the free flow of communication through the improved communication services to the rural areas will act as a catalyst of change to improve the people's living standards. It will potentially increase the socio-economic activities of the people thus improving the people's situations in the rural communities. These identified rural communities have been technically isolated or disconnected from the rest of the country, due to unreliable communication reception and relying on community radios for information and word of mouth dialogue.

This thesis gives reason for a Melanesian research paradigm of ontology and epistemology that is set on Melanesian values and on approaches of respect, reciprocity, benefit and relationships (Wilson, 2008). These elements come into play especially during my initial conversation and data collection period.

The main research question of "What are the communication needs of NVS, its network of skilled volunteers and the hosting rural communities" was revealed and reflected during the participatory research. Through negotiating, building a relationship and conducting the research using Melanesian values and realizing what social factors influenced the application of such a research project is very crucial and important. While the research questions served to be answered, through a prerequisite of both traditional and modern research practices, this thesis suggests that the research is part of a cyclic process that goes on and will go on.

1.9 Factors that Influence Research

This research study was sanctioned by NVS to investigate and identify the nature and implications that is creating communication gaps between the stakeholders. The intension was to present the research findings to the NVS management for deliberation. These research findings will become a piece of strong evidence to lobby with the government, mobile companies and donor agencies to solicit development funding to do scoping design in order to erect communication reception towers to improve the communication services in the disadvantaged rural communities (Reeves, 1993).

1.10 Contextual background

This chapter situates the research within a developing country framework and reviews the media's role as affecting communication for development in PNG. Specifically, communication strategies through the mass media are discussed as vertical and lacking local content and encouragement. Community and church-based media are increasing and have proven its potential to contribute to community development aspirations in general through programming and disseminating of information to the rural communities. Both community-

oriented and mass media are discussed as essential as a pedestal for the intervention proposed here.

1.11 Papua New Guinea at the Cross Roads

Papua New Guinea gained independence from Australia in 1975 and progressing as an independent state, but more specifically its coming into modernization has been critically debated by domestic and international observers. Within modern interpretations of development, PNG is ranked (measured economically and socially) 133 out of 174 countries according to the United Nations Human Development Index of 2002. The United Nations Development Programme reports that the country faces serious dilemmas with achieving much of the Millennium Development Goals (MDGs), especially goal number eighteen, which is to cooperate with the private sector, to make available new technologies, especially information and communication. The report highlights the lack of resources to sustain support systems in core sectors, as causing a poor to a non-functional situation in all sectors to meet the 2015 Millennium Development Goals (MDGs).

With an estimated 8 million people unevenly distributed between regions and provinces, 85% of them are living in geographically challenged rural communities in PNG, livelihoods are largely subsistent. Half of the adult population are illiterate and speak 8 hundred different languages. There are disparities in population size, growth rate, and the demographic component of fertility, mortality and migration (PNG Human Development Report, 1998-1999). Natural resources include coal, copper, oil, gas, timber and fisheries with an economic zone of 3.1 million square kilometres of tuna resources and the second largest rainforest in the world (PNG Government Medium Term Development Strategy, 2005-2010).

Mining and resource extraction have both positive and negative impact since 2002. There was a significant revenue from the resources for the national and provincial government. "However, successive governments have so far been unable to leverage the exploitation of the country's natural resources into per capita income growth and improved service delivery" (Batten, Gouy and Duncan, 2008, p. 9). The government has prioritized the rehabilitation and development of infrastructure. This has affected transportation and communication services which grew in expenditure by "a stunning 35% in 2007" (p.4). It is an increase in spending in those areas and growth in productivity. "Service sectors of infrastructure, transportation, communications and industry have had varying growth with household income increasing because of increases in world prices of tree crops" (Batten, Gouy and Duncan, 2008, pp. 1-5). "The harsh reality is that poor people in rural and remote communities, often do not have access to adequate healthcare facilities, transportation and communication systems" (2008, p. 5).

Political instability, social disorder, economic imbalances and civil war have affected PNG's growth since independence. "The country's steady development became slow in the 1990s when there was a marked increase in law and order problems, the civil unrest on Bougainville spanning 10 years and the macro-economic crisis between 1994 and 1995" (English, 2006, pp. 19-21). PNG has had a history of continuous reshuffles and vote of no confidence in changing leadership and government coalitions in between general elections. "Coupled with cases of corruption in the parliament and the public sector (the largest employer in PNG) and very few successful prosecutions, little attention has been given to real development plans" (Division of Public Administration and Development 2004, p. 5). Windybank & Manning (2003) said "democracy has been hijacked by those responsible for and benefiting from the 'system and systematic' corruption of public institutions" (p. 1). The current situation is a product of

structural imbalances dating back to independence in 1975 and of "conventional policies that failed to correct them" (Windybank & Manning, 2003, p. 3). The mistake, as Kukari & Ogoba (1999) state, was when political leaders adopted an ideology of development congruent with that in the West. The authors describe PNG's progress, because of early leaders' lack of critical consideration of kind of development was appropriate for a country so diverse in language and culture.

The country's diverse linguistic, cultural environment and rugged terrains further challenge the development process. Papua New Guinea has more than 800 known languages or *Tok Ples* and a large cultural and bio-diversity. About 85% of its estimated 8 million people live in rural areas that are geographically challenged. This has caused communities to develop their own hierarchies, rituals and languages and become stewards of their land. "Historically, PNG has had an oral culture where experiences had been passed onto the young generation through participating, observing and listening" (Papoutsaki & Rooney, 2006, p. 2). These development-related issues have affected the country's response to critical issues such as social problems and the economy.

The argument of reach is prevalent in many media-related discourses. Newspapers have a limited circulation and illiteracy and costs in rural areas restricts the medium to a few privileged. Web-based media is limited to urban centres where Internet connections via landline or goggle usage are determined by access to technology and costing. Broadcast television reach is subject to technological infrastructures such as communication towers, satellite feed and access to television sets and electricity supply. The emergence of *haus piksa* (village cinemas) in rural villages is increasing the people's use of television through the viewing of DVDs and CDs, mostly consisting of Hollywood and Bollywood entertainment and

uncensored illicit films. “While radio is the most viable means of communication in PNG, it is still far from reaching significant participation and empowerment” (Papoutsaki & Rooney, 2006, p. 13).

“Public radio in the form of the National Broadcasting Corporation (NBC) is the only one with the potential of contributing to achieving development goals compared to commercial and civil society based radio” (Papoutsaki & Rooney, 2006, p. 13). It has a provincial network (18 in total) broadcasting development contents often in a local language apart from English and Tok Pidgin. The NBC's *Karai*, *Kundu* and (formally) *Karang* services had a well-defined identity and role. *Kundu 2* has become a television service of this government established with large local content and may be described as a government mouthpiece (Papoutsaki & Rooney, 2006, p. 15). The 18 provinces that have provincial radio stations are Lae, Madang, Goroka, Simbu, Mt Hagen, Enga, Rabaul, West New Britain, New Island, Manus, East Sepik, West Sepik, Southern Highlands, Milne Bay, Daru, Kerema, Bougainville and Oro provinces.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

In this section, literature relevant to the current research study is discussed and the conceptual framework underpinning the research project is developed.

Assessing communication gaps through the communication for development, ethnography and communicative ecology research approaches (Lennie & Tacchi, 2013).

The proposed research project sits within the communication for development and social change framework. Communication for social change and development started during the post-war period to provide aid to reduce poverty in developing countries in Africa, Asia and Latin America (Waisbord, 2008). All those countries were facing severe poverty, illiteracy, poor health and sanitation, recession in economic activities, political corruption and limited infrastructure development to serve the people's needs. The concept was derived from the theories of communication for development (CFD) and communication for social change (CFSC) to promote integral development in developing countries. The idea was to transform developing countries to progress to developed countries, in terms of economic growth, maintaining stability in political systems, improving infrastructure and technology and to empower and raise the literacy level of the people in developing countries (Waisbord, 2008). The purpose of engaging development communication is to raise the quality of the people's life, including increased income in socio-economic opportunities and well-being, eradicate social injustice, reduce poverty and sanitation, and promote equality and freedom of expression (Waisbord, 2008).

Waisbord (2008) stated that underdevelopment was due to lack of communication services; therefore, communication was viewed as the instrument that could propel development processes. The free flow of communication could enhance modern attitudes and activities that could improve literacy and allow people to break free from their traditional way of living (Waisbord, 2008). The diffusion of communication technology meant that modernization could be measured and quantified in terms of media penetration. It is found out that in countries where people exposed to modern media and communication services were focused towards modernization and development (Lennie & Tacchi, 2013).

In addition, Carolyn & David (2006) confirmed that social change and development happen when people have access to reliable communication services in any context. The exchange of information will open-up useful information at the grassroots level for the people to determine their future, rather than experts from outside telling the rural people what to do. When people realise their sources of oppression, as well as their strength, they will then be able to collectively pursue solving their problems. This is because communication and information sharing are persuasive tools that can assist in the process of changing people's attitudes and situations to make positive change (Waisbord, 2008).

Carolyn & David (2006) noted that two-way communication using a telephone is phenomenal while electronic media typically transmit one-way communication in the form of sending information to the receiver. Therefore, communication in-flow, information sharing and dissemination are capable of stimulating new ideas and influencing integral social change and development in the rural communities (Lennie & Tacchi, 2013). The effective use of communication technologies establishes the communication channels between people, cultures and nations. It enables people to become better informed about the world around

them because of using the various available communication technologies (White, 1999). The various communication technologies can be used to send messages, such as through phones, face book, faxes, texting, written memos, emails and radios depending on context and availability of communication mediums (Carolyn & David, 2006).

2.2 Communication for Social Change (CFSC)

Lennie & Tacchi (2013) noted that communication for development is the use of communication processes, techniques and mass media to help people towards a full awareness of their situation and what they want to do to change their situations. This involves resolving conflict, assisting people to plan action for change and sustainable development, helping people acquire the knowledge and skills they need to improve their situation and that of the society (Lennie & Tacchi, 2013). Community-based information and communication technology processes such as community radios, community dialogue, participatory video, community theatre groups, dancing, drawing and digital storytelling and other community based communication tools are used to support development activities and aspirations (Lennie & Tacchi, 2013).

Social change and development happen when people have access to reliable communication services in any context. In two-way communication, people use telephones to communicate with each other, while electronic media typically transmit one-way communication in the form of sender and receiver situation (Carolyn & David, 2006). Communication in-flow, out-flow and information sharing are capable of stimulating new ideas and influencing integral social change and development in the rural communities (Lennie & Tacchi, 2013).

Communication is a social process based on dialogue, seeking change, building trust, listening, sharing knowledge and skills, building confidence, debating and learning for sustained

meaningful change and development (Waisbord, 2008). Therefore, communication should be participatory, inclusive, rapport building and horizontal dialogue about their development aspects and social change, rather than telling people from a top-down approach (Lennie & Tacchi, 2013).

The issue of gender, power and local knowledge need to be taken into account to increase the effectiveness of these processes and the inclusion of marginalized groups. For example, in PNG, males are dominant in decision making in the household, but females still command respect and plays a vital role in the household. PNG still maintains both matrilineal and patrilineal customs and tradition of inheriting from the genealogies (Marlinswnoski, 1984). In some cultures, and tribe's in PNG, women inherit and make decisions on all the genealogy possessions including land and share the genealogy possessions with their male siblings. For instance, in Bougainville and Milne Bay provinces female inheritance of genealogy possessions are maintained (Marlinswnoski, 1984).

Without people's participation and decision, making no community project can be successful and last long enough to promote and support social change and development (White, 1999). In other words, listening to the people's views and acting on their language to suggest solutions to address their needs and problems through collective participatory way is very useful. Using their own language may attract more "buy in" as their problems being heard and they will feel a sense of inclusive and ownership to the project (White, 1999). Because the local knowledge is "location specific, value laden and does not exist in a vacuum, but in social, historical and cultural context" (Gegeo & Watson-Gegeo, 2001, p. 381).

Communication means a process of creating and stimulating understanding as the basis for social change rather than information transmission and dissemination. Communication is a

social relation and interaction between people in sharing information and skills in societies. In disseminating and sharing information, people should not be forced to accept new practices no matter how beneficial they might be. Instead, people must be encouraged to participate meaningfully and have the opportunity to make informed decisions (Waisbord, 2008).

Moreover, communication for social change and development is a way of thinking and practice that enable people to be in control of the communication processes. Based on dialogue and collective action, communication for social change is a process of both public and private dialogue through which people determine who they are, what they need and what they want in order to improve their lives. Communication for social change is striving to strengthen cultural identity, trust, commitments, ownership, community engagement and empowerment (Lennie & Tacchi, 2013). Communication for social change uses all forms of communication such as community radios and community theatre education programmes to promote social change in the communities.

2.3 Challenges in Accessing Communication Services

Dutta (2011) argues that inequalities in the distribution of material and communicative resources are due to the neoliberal regime that dominates global capitalism and suggested for a bottom-up process to transform the inequitable structures in global politics. The problem lies in the structure of power and control. Therefore, Dutta (2011) calls for local culture-centred processes of grassroots organizing that are directed towards changing those structures that foster poverty and inequality. The culture-centred approach in social change communication is a preferred mode to create entry points for structural transformation (Dutta, 2011).

This approach enables the local actors and communities to participate in structural changes in their situations, which can be influenced by the lived experiences. Addressing problems of poverty and inequality in all societies requires efforts that are led by local communities in partnership with NGOs, activists and academics. Dutta (2011) suggested that the creation of local-global networks of partnerships that further the agenda of local communities by working with them in creating spaces for local ideas and voices in mainstream policy strategies are suggested. Therefore, communication emerges at the heart of the culture-centred approach as the method of change to erase dominant structures to maintain participatory politics and approach of local communities (Dutta, 2011).

Meanwhile, Bhatia (2005) argues that the challenge posed by the emerging information communication is the concept of universal service and how a "right to communicate" will evolve in a digital world, where the basic services required by all citizens are becoming more expensive, extensive and complex. Access in this context involves not only physical availability and cost, but also ensuring that the users can benefit from the services through a minimum level of digital literacy and through appropriately adapting to the communication system (Bhatia, 2005). In the increasingly competitive and commercial world of information and communication, the risks of exclusion of disadvantaged population are substantial both within and among societies. Therefore, these risks are of particular concern to the developing countries, which need clear and resourceful policies if they are to benefit from the emerging communication revolution (Bhatia, 2005).

Bhatia (2005) reported that International Telecommunication Union (ITU) and UNESCO in a joint study had offered to collectively improve telecommunication services. For instance, firstly to cooperate among the users in order to consolidate their demand for

telecommunication services, secondly to participate between telecommunication operators and users to develop and expand telecommunication services based on market demand, and thirdly to enlightened public policies to promote the building and use of telecommunication infrastructure in developing countries (Bhatia, 2005).

2.4 Lack of Basic Infrastructure in the Rural Areas

In some of the rural areas in Papua New Guinea there are no basic social services and infrastructure such as education, health, postal services, banking, transport system, rural airstrips, better road network and communication services for the rural people to use (Harris & Papoutsaki, 2008). Several Island countries in the Pacific region failed to provide essential services including communication services for the people to access to make informed decisions to improve their standard of living (Papoutsaki & Rooney, 2006). Lack of basic services including telecommunication services are having an impact on the people's situation in the Pacific region. For example, health facilities are run-down with no medication to treat the people and schools have no basic stationaries and facilities to comfortably teach the children.

Moreover, Sillitoe (2002) asserts that due to the ruggedness of the country and unfair distribution of the country's resources and wealth, the country is developing at a snails' pace in terms of infrastructure development in the rural areas. Alarminglly, essential services such as health, education, telecommunication and other basic services are not readily available for the people to use in the rural areas. Therefore, when people want to seek basic services, they have to walk several hours or a day to a neighbouring village clinic or rural out-post station to get help (Sillitoe, 2002).

According to World Bank (WB) PNG programme reported that most of the country's population live in the rural communities and are faced with significant challenges in health, education and economic opportunities (World Bank, 2017). PNG's overall economic growth rate has been consistent with real GDP averaging 3% since 2000. While revenue continues to face challenges due to lower commodity prices, good macroeconomic management and well-planned service delivery are necessary to ensure development benefits are accessed by a greater number of citizens in the country. PNG's growth and abundant resource potential provide a strong platform for economic growth and engagement in the region (World Bank, 2017). The country's economy remains dominated by three sectors such as agriculture, forestry and fisheries sector. The mineral and energy extraction sector, which accounts for the majority of export earnings and Gross Domestic Product (World Bank, 2017). In order to diversify PNG's asset base and increase employment, investment is needed to strengthen capacity in institutions, human capital, and physical infrastructure development.

Electricity, telecommunications, road and other transport infrastructure remain critical for the private sector to drive growth. Obtaining more revenue from the mineral sector and translating into strong, tangible improvements in living standards for all Papua New Guineans remains the key challenge for the government of PNG. It is important to improve public financial management and efficiency of public spending to convert resource revenues into inclusive growth and, consequently, to realise a genuine improvement in the livelihoods of the people (World Bank, 2017).

PNG government has drawn-up a development plan or goals called Vision 2050 to achieve in the long term, described below.

PNG Government's Vision 2050

In order to improve the people's situation in the country the PNG governments planned and introduced Vision 2050 underpinned by seven strategic focus area which are referred to as pillars of growth and development:

- Human capital development, gender, youth and people empowerment.
- Wealth creation and infrastructure development.
- Institutional development and service delivery.
- Security and international relations.
- Environment sustainability and climate change.
- Spiritual, cultural and community development; and
- Strategic planning, integration and control.

PNG has great potential through its natural resources-land, cash crops, forests and fisheries to improve its socio-economic development status. Equally, important are other areas that can contribute to the economic and better living standard of the people, including human capital development, improved infrastructure networks and efficient service delivery mechanism for public goods and services (Vision, 2050).

Based on the deterioration of the provisions of public goods and services and lack of meaningful participation of the rural people's income earning activities and lack in accessing better services. The government's Vision 2050 incorporates the strategic directional statements and plans that will drive development provisions and initiatives throughout the country over the next 40 years. The country intends to focus and strive to achieve the following key outcomes:

- Changing and rehabilitating the mind-set of our people.

- Having strong political leadership and will power.
- Improvement in governance.
- Improvement in service delivery.
- Improvement in law and order.
- Development of strong moral obligation; and
- Rapid growth potential, which can be realized in a reasonable time.

The overall goal is to empower the people through improved education and life-skills to work the land and benefit from spin-offs from major projects, thus increasing the trade volume of the people and enhancing the level of service delivery and basic infrastructure (Vision, 2050).

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In the process of achieving some of the Vision 2050 development goals, the national government through the Ministry of Inter-Government Relation, Australian High Commission and the World Bank jointly launched programmes to improve rural service delivery to the rural areas of the country. The Rural Service Delivery Project (RSDP) was officially launched in November 2017 to support 19 districts across 5 provinces improve community access to basic infrastructure and services. During the launching, the Minister for Inter-Government said the project will work with communities to develop and deliver the services most needed in the rural areas where 80% of the people live. The project will be implemented in central, Simbu, East New Britain, West Sepik and Western province (World Bank, 2017).

According to World Bank (2017) the Rural Service Delivery Project will use a Community Driven Development (CDD) approach, which gives control over planning decisions and investment resources to a community group. CDD builds on the five key principles of transparency, participation, local empowerment, greater downward accountability, and enhanced local capacity. The total value of US\$ 28.5 million was co-financed by the Government of PNG, the World Bank and the Government of Australia.

The project will provide ward development grants to rural wards, which can be used for a wide range of small-scale social or economic investments and/or services. The rural wards will identify their development priorities and be responsible for the design, implementation, and maintenance of their investments, as well as reporting on the use of the funds. The project will provide grants for more than 400 community sub-projects and estimated to benefit 400,000 people, while also increasing the power of women to contribute to decision-making and development. A pilot project was already implemented in Central and Western province that this project will build on and expand. Over the last four years, 58 sub-projects were completed, including the building of classrooms, aid posts, water supply system, solar electricity, community halls, and a footbridge in the two pilot provinces (World Bank, 2017).

2.5 PNG Development Partners

On the other hand, Oxfam NZ and PNG are working together to improve the people's living standards in order to alleviate poverty in the rural areas of the country. The poor infrastructure such as road and transport system has deprived the rural people from participating in economic opportunities from transporting their produce to lucrative urban markets. Therefore, income inequality in PNG is the highest in the Asia Pacific region and growth-fuelled inflation is causing a further imbalance as once affordable basic items are now out of reach for the rural population (Oxfam, 2017).

Currently, Oxfam NZ and PNG are implementing and working on two programmes HARVEST (a livelihood project). Oxfam PNG is running a third project around gender justice and equality (Oxfam, 2017). Generally, Oxfam NZ and PNG are engaging with the rural people in agriculture activities to improve the economic situation of the people to send their children to school, access decent health care and to put nutritious food on the table, ensure the people have

clean water, sanitation and hygiene and elimination of all forms of violence against women. Oxfam is collaborating with community-based organizations to implement gender equality, food security and other programmes in the country (Oxfam, 2017).

The rural infrastructure development and service delivery is captured in the PNG Vision 2050 in partnership with the World Bank and Australian Government and development partner Oxfam are implementing HARVEST livelihood programme to improve the rural people's living standard. Therefore, NVS will approach those development partners to look into the communication problems faced by some of the rural communities. Apart from Oxfam other partners such as the World Bank, Asian Development Bank, UNICEF, UNDP, Save the Children and other organizations are working to improve the people's situations in the country.

Meanwhile, in the process of achieving some of the Vision 2050 development goals the national government through the Ministry of Inter-Government Relation, Australian High Commission and the World Bank jointly launched programmes to improve rural service delivery to the rural areas of the country (PNG, Vision 2050). The Rural Service Delivery Project was launched in November 2017 to support 19 districts across 5 Provinces improve community access to basic infrastructure and services. During the launching the Minister for Inter-Government Relation Hon, Kevin Isifu said the project will work with communities to develop and deliver the services most needed in the rural areas where 80% of the people live (PNG, Vision 2050). The project will be trialled and implemented in five provinces Central, Simbu, East New Britain, West Sepik and Western province. The Rural Service Delivery Project will use a Community Driven Development (CDD) approach, which gives control over planning decisions and investment resources to community groups. CDD builds on the five key principles of transparency, participation, local empowerment, greater accountability, and

enhanced local capacity. The total value of US\$ 28.5 million was co- financed by the government of PNG, the World Bank and the Australian government. The project will provide ward development grants to rural wards which can be used for a wide range of small-scale social or economic investments and/or services. The rural wards will identify their development priorities and be responsible for the design, implementation, and maintenance of their investments, as well as reporting on the use of the funds (PNG Vision, 2050).

The World Bank, Australian Government and PNG Government are rolling-out Rural Service Delivery Project (RSDP) using Community Driven Development (CDD) approach, the partners need to strengthen communication services in the rural areas to mitigate the communication problems (World Bank, 2017 & PNG Vision, 2050). It is because communication and development services run parallel together to achieve development initiatives, without reliable communication services development services will not eventuate and achieve expected outcomes. Therefore, improving communication services in rural areas should be included in the Rural Service Delivery Project initiative to achieve maximum benefit for the rural communities. As the poor communication, services in the rural areas are already affecting the rural people's living because the people could not contact the companies and business houses to sell their natural resources and cash crops to sustain their living.

2.6 Community Radios, Theatre Groups & Emerging Mobile Phone Uses

“The rural population in PNG have articulated the benefits of community radio stations and theatre groups as significant communication tools. Community theatre and provincial radio stations are argued as being a force for social change and development by creating dialogue and should be initiated by the locals themselves” (Papoutsaki & Rooney, 2006, p. 15). It

empowers people, in the sense that they work with low access threshold for the receivers to become senders and that they respect local cultures (Papoutsaki & Rooney, 2006).

Apart from church-based radios, each province has community radio stations and theatre groups that are disseminating news and promoting social change and development. Both community theatre groups and community radio stations are serving the people in the village level of the country. PNG has few completely owned and operated 'community media' such as provincial radio stations and single EM-TV station apart from foreign-owned newspaper companies and church-based radio stations that are contributing to the development of the rural communities.

“The community radios and theatre groups are promoting adult literacy programmes, skills training, agriculture, food security, nutritious cooking, general health and hygiene, poverty reduction, awareness to reduce the infant mortality rate and empowering the rural people to make informed decisions. Rural communities appreciate the relationship between Christian principles and community development as promoted by these radio stations and community theatre groups” (Eggins, 2008, p. 215).

Unlike traditional alternatives such as citizens' media that people present and produce news, community radio stations, community newsletters and ICT centres and the growth of mobile phone use has significantly grown in the past decade. “Policy shifts in mid-2007 saw the National Executive Council (NEC) endorsing the Revised ICT Policy in April 2008, ceasing monopoly of the government's telecommunications provider Telekom” (Batten, Gouy & Duncan, 2008, P. 11). The Independent Consumer and Competition Commission (ICCC) then granted licenses to Digicel mobile company (Watson, 2010). Digicel Pty Ltd has been

acclaimed for improved communications, with increased subscribers and market penetration (Batten, Gouy & Duncan, 2008).

“Although mobile phone use is becoming popular in the urban centres of the country, the reception signal in some of the rural areas is facing frequent outages and inaccessible for the people to use” (Watson, 2010, p. 3). It is because there are no communication towers and satellite feed to relay the information from the sender to the receiver. Therefore, the government and mobile companies through the public, private and partnership programme (PPP) should erect the communication reception towers and satellite feed in the rural areas to enable the people to access communication services.

2.7 Communicative ecology and information eco-systems

“It is stated that communicative ecology concept has been further developed for use in information and communication technology studies in societies” (Foth & Hearn 2017, p. 5). In communication research, assessing communicative ecology of the environmental context is a way forward to better understand the people’s communication nature and what method of communication are available and the people are using. “It is stated that the model is used to analyse and measure the relationships between social interactions, discourses and information eco-systems of the people in physical and digital environments” (Tacchi, Slater & Hearn, 2003, pp. 21-24). The combining and applying of communicative ecology and ethnographic research method is relevant in communication research (Tacchi, Slater & Hearn, 2003, p. 1). The involvement of local people in community based research would bring more value and as the people would use their ethnographic experiences and feel the sense of ownership and belonging to the research project or activity. While participating in the research the local people would inevitably acquire new experiences and literacy skills (Tacchi

& Watkins, 2007). It is clear that researches done in indigenous communities are to support and provide interventions to improve the people's situations (Tacchi & Watkins, 2007).

The rural landscapes constitute particularly important spaces for sustainability as an increasing number of participatory qualitative researchers have been recognized (Bodorkos & Pataki, 2009, pp. 313-334). Most importantly, natural ecosystems that provide various ecosystem services for all societies are mainly maintained in rural areas; thus, rural communities play a key role in creating a sustainable future for human societies. "Ecological sustainability in the rural landscape cannot, however, be stripped from social, economic, cultural and political relations" (Bodorkos & Pataki, 2009, pp. 313-334). Social justice entailed in the ideal of sustainability requires the political quest for a more inclusive democracy. Current approaches to sustainability, therefore, emphasize and call for creating "communicative spaces open to all stakeholders, particularly to members of local communities, in order to arrive at collective and mutual understanding and generate collaborative actions" (Bodorkos & Pataki, 2009, pp. 313-334).

"More recently, the communicative ecology framework has been extended in studies of the nature of media use to support social networks in rural, urban villages and inner-city apartment buildings" (Foth & Hearn, 2007, p. 5).

Communicative ecology has also been used in other studies with various interpretations and other authors use the term to describe the local communicative environment of a particular setting in which discourses are contextualized (Foth & Hearn, 2007).

There is no "single, agreed-upon communicative ecology model, to use, there are various approaches to understanding and applying the model in various contexts" (Latour, 2005, p. 5).

Therefore, in conducting media and communication researches, it is appropriate to apply communicative ecology model that is relevant and sustainable to the environment. “The applying of correct methods will help analyse and explore the social interactions, discourses, and communication technology of individuals and collectives in their environmental settings” (Tacchi, Slater & Hearn, 2003, pp. 21-24). Communicative ecology is a process in which communication occurs in any settings. These processes are seen to involve people interacting in their social network and with the eco-systems in their respective environment (Tacchi, et al., 2003).

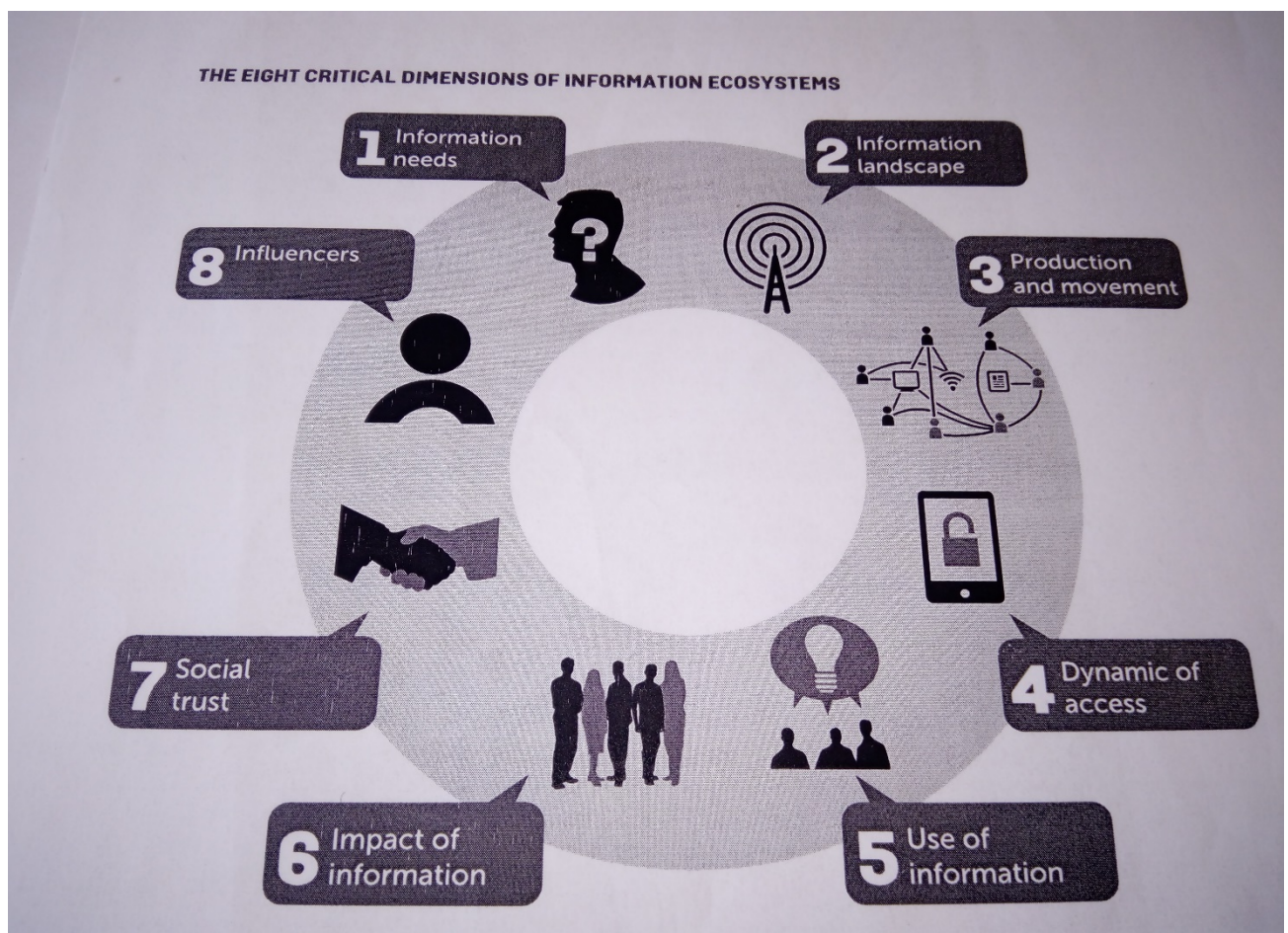
It enables the researchers to assess the “nature of discourse between individuals and within groups, and how communication changes according to the nature of the people's relationships with one another” (Foth & Hearn, 2007, p. 4).

Therefore, the model of community information eco-systems and communicative ecology mapping will be a positive way to pursue in order to recommend solutions to the communication problems of the two impacted rural communities (Internews, 2014). The process of assessing, analysing and enhancing information and communication flow can contribute to a more connected and resilient community. Understanding how community members communicate and use information can assist in identifying significant communication gaps and impediments to design appropriate and effective interventions (Internews, 2014).

Internews (2014) stated that communication and information have a significant impact and is vital to people's lives, without information, people can neither understand nor effectively respond to events that shape their world. The ability to access, create and share critical information about the world is foundational to understanding the challenges they confront,

adapting to an evolving environment, and ultimately improving their lives (Internews, 2014). Information is the lifeblood of resilience as the world is increasingly focused on building resilience, the capacity of individuals, communities, and systems to survive, adapt and grow so that communities can better address their own challenges through accessing information and sharing (Internews, 2014). A significant element in the understanding, building, and reinforcement of community resilience must be an understanding of how to support the health of information ecosystems. A community with a strong information ecosystem is a more resilient one (Internews, 2014).

This diagram shows the cycle of information ecosystems that enhances information landscape and information flow to the nature



Source: Internews 2014

In the research study, I combined and used observation, storytelling, interviews, focus group and other methods to map out the information ecosystems, communicative ecology, information landscape, information needs, influencers, social trust, information impact, information use, information flow and the dynamics of accessing information (Internews, 2014). The understanding of communicative ecology process has enabled me and the impacted rural communities to collectively make an informed decision to the communication problems experienced in the volunteer hosting rural communities of the country.

CHAPTER 3: METHODOLOGY

3.1 Introduction

The research was conducted using a qualitative research methodology guided by a Melanesian Research Methodology in order to combine and apply culturally appropriate approach and methods to collect and process data (Vallance, 2007). This approach has been selected because it has open and flexible paradigms to conduct the research interviews to collect data involving the rural communities. Melanesian Research Methodology, suggested by Vallance (2007), culminated in qualitative data with a generous amount of qualitative information.

According to Vallance (2007), Melanesian research methodology embraces the nature of being alive and the existence of the Melanesian people through maintaining their indigenous knowledge, cultures and traditions. The Melanesian people have a sense of belonging and ownership to their realities and shared values that are grounded, are the values of the land, the values of the clan or tribe, the values of reciprocity, the values of food, the values of ancestors, the values of rituals and spirituality, the values of leadership, the values of education, the values of compensation and the values of work (Vallance, 2007).

Vallance (2007) emphasized that Melanesian research methodology is validated for research purposes and outlined six Melanesian research strategies that underpin the scope of the research that a researcher should know prior to conducting research in Melanesia. The strategies outlined are in order for the researchers to apply culturally accepted and appropriate protocols when conducting research in Melanesian ethnic communities.

According to Vallance (2007), the components of Melanesian research strategies are as follows:

1. “The research must be grounded in a Melanesian world view that respects Melanesian ontology and epistemology;
2. The research programmes; processes; and outcomes, must respect and focus upon the Melanesian experience;
3. The research must share Melanesian values in a manner that is appropriate in data collection and analysis;
4. The research must be grounded in the Melanesian community experience and consolidated that life-force integration between all participants, including the natural and spiritual world;
5. While not requiring that all researchers be ethnically Melanesian, the lived experience of Melanesian culture is a requisite of all participants, including the researchers; and
6. That the research outcomes be developed, publicized and moved towards action and policy in ways that foster the life of the Melanesian community” (Vallance, 2007, p. 8).

“The integrity of research depends upon the people involved and where there is direct contact between the researcher and the researched, the relationship between the two is critical. The researcher-researched relationship is also dynamic and liable to change” (Donnelly, 2007, p. 41). As a cultural insider and a Melanesian researcher from the Highlands region of the country, I have used my local knowledge and conducted the research using culturally appropriate language and protocols. For example, protocols like when exchanging gifts take the gifts offered with both hands and put towards your heart, sharing beetle nuts or sugar cane, respecting others and leaders, behave appropriately, do not talk to a young woman when she is alone. When people offered you food eat some even though you are full, do not

refuse the food, as it will be very embarrassing for the giver. Therefore, interact with the people in a respectable manner while engaging with indigenous communities.

3.2 Exploring an Indigenous Research Approach

Conceptually, indigenous epistemology is concerned with the process through which knowledge is constructed and validated, and the role of that process in shaping thinking and behaviour. "All epistemological systems are socially constructed and formed through socio-political, economic, and historical context and processes" (Gegeo & Watson-Gegeo, 2001, pp. 381-382).

An indigenous research approach is sought in this thesis. An indigenous research methodology demands a research mind-set congruent with an indigenous paradigm, of ontology and epistemology guided by axiology and methodology, "entities that are inseparable and blend one into another" (Wilson, 2008, p. 70). These four compartments need to work in some logical or illogical way in order to apply in research. The purpose of including such an approach is to establish its place in knowledge building at the local level and in academia. I describe an indigenous research through defining key terms of understanding indigenous values logical.

Gegeo & Watson-Gegeo (2001) viewed epistemology as knowledge that is created in a particular situation and environment and it is not necessarily universal. A cultural group's epistemology (way of learning) is propelled by their way of being, their existence, their reality or their ontology. Ontology is a branch of metaphysics dealing with the nature of being. The ontological question can be "What can be known?" or "What is real?" which then moves people to ask an epistemological question of "How can we find out" (Vallance, 2007, p. 2; Wilson, 2008, p. 33). These are big 'academic' terms that translate to how we are, what is our

reality, how we interact with nature and learn and what do we know now. These influence who we are in the world, they influence our perspectives.

Despite, a growing shift in perspectives towards inclusion of indigenous knowledge in social change and development, there is still a lack of "systematic and careful examination of how differing indigenous people construct knowledge – that is indigenous epistemology" (Gegeo & Watson-Gegeo, 2001, pp. 379-381). This is the biggest knowledge gap in related works of literature that have contributed to ill-prepared social change and development interventions, on basic services in the rural areas. Knowledge and skills about development initiatives and social change have to be taught or transferred to communities through an epistemology that is theirs. This is the greatest challenge for PNG due to its diversity in language, culture and traditions.

“It is argued that indigenous methodologies do articulate that indigenous scholars cannot be privileged just because of their indigenous background because there are a great variety of insider views” (Porsanger, 2004, p. 109). “Insider research has to take seriously the notion of accountability, which is an obligation or willingness to accept responsibility, as well as the notion of respect and most of all the notion of a thorough knowledge of indigenous traditions, cultures, protocols and language” (Porsanger, 2004, p. 109).

“Predominantly, the West had been objectifying indigenous art as it was considered devoid of artistic qualities and the conventions of positivist and post-positivist qualitative research appears to have sucked dry the emotions, sensuality and physicality of realities in many communities” (Cole & Knowles, 2007, p. 57). However, this has changed with the growing interest for a different way of seeing and knowing, furthermore, Cole and Knowles, (2007) argued that arts should be regarded as a "form of knowledge and not merely ornamental

productions of human experiences". Waiko (as cited in Cochrane, 2007, p. 15) maintains that PNG cultural heritage is every bit expression of art. These are vital experiences that are integral to the domains of cultural expression and the mediums through which values are shared and enacted (Prosser & Loxley, 2008).

It is claimed that Melanesia consists of landmasses as ancient as many in the world, and has cultures, laws, and knowledge as ancient as others (Papoutsaki, et al, 2008; Vallance, 2007; Narokobi, 1983). "The Melanesian history did not begin when white men set foot on our soil" (Narokobi, 1983, p. 15). Melanesia and Melanesians are rich in culture and art; it is rich and beautiful, which is natural and indigenous. Melanesians must walk with freedom and dignity on the land the genealogies lived on (Narokobi, 1983). Melanesians will never surrender our sovereignty to foreign exploiters, to unite Melanesia. "No race has the right to dominate another through culture, religion, politics or economics. Every nation has a duty to free its soul from the bondage of greed and racism. Melanesians must set standards, not follow footsteps, and must strive to create, not to destroy" (Narokobi, 1983, p. 15). We must work for Melanesian standard of excellence, of humour, of fortitude, of virtue, of self-sacrifice and of steadfast commitment to what is just. Melanesians must strive to be good as anybody of any race. The Melanesian Way is the way of Melanesians, at any given point in time (Vallance, 2007, Narokobi, 1983).

With that background of understanding and knowledge the people of Kerea and Kintunu villages however, still maintain their virtue of life and lived experiences, that their knowledge is "an everyday realization" The indigenous knowledge reflects the realities and dynamic ways that embed and enabled the people to understand themselves in relation to their natural

environment and how they organize their cultural knowledge of flora and fauna, cultural beliefs and history to enhance their lives (Semali & Kincheloe, 1999).

The qualitative research was conducted using a range of research methodologies in the two rural villages that host the volunteers. I used interviews, questionnaires, focus group, observing and storytelling to collect data. I chose Kerea and Kintunu villages to conduct the communication research because NVS could not maintain regular contact with the volunteers in the two villages due to poor communication services.

3.3 Interviews:

While applying the interview research questions I interviewed twenty research participants both males and females at Kerea village. At Kintunu village I interviewed twelve participants both males and females. The one-on-one interviews were conducted outdoors in the villages at a selected site away from the people to uphold the confidentiality of the interviewees. At Kerea, village eight females and twelve males were interviewed and at Kintunu village, an equal number of genders were interviewed. In Kerea village, I interviewed twenty participants because the people live in one big village and that made it easy for me to organize the selected participants. In Kintunu village, I interviewed twelve equal number of genders. I interviewed twelve participants because the people were living in widespread small hamlets apart from each other and that made it hard for me to organize the selected participants.

3.4 Questionnaires:

After informing the participants and the people at Kerea village about the questionnaires and the process of filling out the questionnaire sheets, I distributed the questionnaires at the village primary school notice board and the church for the interested people to fill-out. I distributed thirty questionnaire sheets and twenty-seven sheets were filled and returned.

Since the research was a new concept and activity in the village, I only distributed thirty questionnaires. I put the questionnaires in school and church buildings because that is the common place where most of the village people congregate to get their children from school and attend church services. I did not distribute the questionnaires at Kintunu village, because again the hamlets are widespread and depend on the situation on the ground.

3.5 Focus group:

The focus group was also used to collect data; 18 participants were involved with three groups of six participants in each group with equal representation of genders. The group discussed the issue of communication problems and come up with suggesting solutions to the communication problems that gave the research-valued data. The focus group research approach was applied at Kerea village only. It is because I find it easy to mobilize and organize the participants to participate in the focus group. In Kintunu village, I did not apply a focus group approach because of the widespread nature and isolation of people's houses and I find it very difficult to organize the participants.

3.6 Observing:

Through the interaction with people I used observation approach in an effort to assess the communication and information landscape of the villages, information needs, information use, information impact and who is influencing information and how new information is flowing into the two rural villages that host the volunteers. I observe the people at the village market places, in the villages, village sporting fields and anywhere in the two villages. Through observing I record, what basic infrastructure is available and what infrastructure is not available in the two villages.

3.7 Storytelling:

In storytelling, everyone will participate and contribute their ideas and thoughts on issues affecting them. The individual participants, in groups, will discuss and contribute their part of the story that will enable and inform them to reach a collective understanding and resolution on issues that confronts them. In community storytelling processes and sessions, everybody including the marginalised will have a space to express their voice (Tufte, 2017). Therefore, storytelling method and approach could be promoted and used widely because it creates an inclusive communicative environment. Through storytelling, you will collect rich data because the marginalized people will raise their voice in that storytelling forum (Tufte, 2017). Therefore, I used the storytelling approach to get the general views of the people on the pressing communication issues of the two villages.

In PNG, when working with rural communities it is good to have many research tools, methods and to have options open because you can travel many days walking to reach communities with whom are not able to directly communicate with you prior to the fieldwork. Therefore, it is essential to be able to negotiate on arrival many features of the research including which methods are most appropriate to the context, if and how participants might be selected, where and how research will be conducted and how privacy and cultural considerations might be respected. Melanesian cultures have their own unique rules about information, who it belongs to, the circumstances in which it might be shared, and how it might be attributed (Papoutsaki & Harris 2008; Narokobi, 1983).

I realized that it is good to include a variety of research approaches and tools to conduct research in indigenous communities. It is in order to apply relevant research methods and methodologies according to the nature and context of the people.

Although the research was a new experience for the communities, the people cooperated and participated enthusiastically in all aspects of the research activities. The research journey was satisfactory due to the communities taking ownership in the research project that focused on how we come to have knowledge. “Indigenous epistemology is a cultural groups way of thinking and creating, reformulating and theorizing about knowledge via traditional discourses and media of communication, anchoring the truth of discourse in culture” (Gegeo & Watson-Gegeo 2001, p. 381).

Contemporary empirical research in the social sciences has adopted multiple methodologies to answer complex questions about society and one of particular sensitivity to experiences is found within an arts-based paradigm. Where arts and creative methodologies are being positioned within the ethics of participative, change focusing and action-oriented (Prosser & Loxley, 2008 & Finley, 2007). This is argued as being an appropriate way of conducting social science research in indigenous communities whose realities are preserved, shared and appreciated through the art forms (Thomas, 2010; Cole & Knowles, 2007; Finley, 2007).

3.8 Ethnography and Participatory Research

The ethnography and participatory research approach is relevant and associated with communicative ecologies of contexts where people and eco-systems live (Tacchi, 2006). In applying ethnography and participatory research approach, the people will have a sense of ownership and will participate in research activities such as interviews, focus group, and storytelling and in other methods. The researchers will inevitably better understand the issues about the media and communication technologies by applying grassroots centred ethnographic method “The action research methods allow the study to be located in not only communication theory but also grassroots communication practice” (Tacchi, 2006, p. 11). In

this approach, participants can act as co-investigators in cycles of inquiry, action and reflection and researchers are able to give back in a way that will develop the communicative ecology. In this way, ethnographic action research is suited to both research and project development agendas (Tacchi, 2006).

The power of casual dialogue and storytelling as an ethnographic communication strategy, I used observation approach and observe the ethnographic situation and communication methods that influence the people in their context (Tufty, 2017). The process employed is to better understand the storytelling ethnographic methodology. The process of bottom-up and inclusive dialogue can enable the grassroots people an opportunity to express their emotions on social issues to improve their living (Tufty, 2017). Therefore, involving the local people in consultation and decision making would contribute positively to creating agency among the marginalized thus developing supportive and nurturing social and inclusive communicative environment (Tufty, 2017).

In Melanesian context storytelling is equally important as the people will reveal and express their concerns and experiences in village storytelling gatherings about community and personal issues impacting them (Narokobi, 1983; Tufty, 2017). I used storytelling methods to collect and process data in the two volunteer hosting villages. Melanesian storytelling is a process and traditionally takes place in the evenings after the day's work and it is both informative and entertaining. Melanesian storytelling is often the richest source of data in a village, where many people may hold one part of the story which they come together collectively to complete a story on development or social issues. It is through such storytelling gatherings a collective understanding and resolutions on community issues are reached (Narokobi, 1983; Tufty, 2017). Storytellers in a village context understand that their story is a

gift to all present and there be no issues with confidentiality or copyright and no one is paid for storytelling.

Bodorkos and Pataki (2009) proposed that participatory qualitative research (PAR) skills should and could be brought into sustainability issues in order to open communicative spaces on pressing agendas. Qualitative research seems particularly relevant in sustainability contexts since discourses of sustainability have explicitly politicized issues of ecology and enacted them through social justice and participatory politics. Rural landscapes constitute a particularly important space for sustainability as an increasing number of participatory research, researchers have recognized. Current approaches to sustainability, therefore, emphasize and call for creating communicative spaces open to all stakeholders, particularly to members of local communities, in order to enable collective and mutual understanding and generate collaborative action (Bodorkos & Pataki, 2009).

PAR has a cycle feature developed by Lewin (1946/1948, p. 206 as cited in Wicks & Reason, 2009) composed of a circle of planning, action and observation of the results of the action (Wicks & Reason, 2009). Then the research focused more and engaged with the communities through dialogue to suggest solutions to the communication problems. This data will then be used to inform the next phase of the research, taking it forward.

To answer the research question, the proposed research study employed the ethnographic data collection techniques of participatory observation, communicative ecology mapping, storytelling, interviews, questionnaires and focus group. O'Leary (2004) stated that ethnographic methodology requires the researcher to use several methods for gathering information.

By using various methods in data collection, it will help the researcher to gather enough information that could lead to reliable and valid research results (Bryman, 2012; Neuman, 2011).

3.9 Methods

This research employed a combination of participatory observation, field notes and diaries were used to collect data. As suggested by Tacchi, et al., (2003), participant observation entails engaging with as many people in many situations as possible, observing what people are doing and what they say they are doing and requires a detailed account of both constructed and unconstructed events. The field notes served as a log of main activities, a detail of events, describing both physical and social environment, noting who was present, what was being discussed, why, when and where (Gegeo & Watson Gegeo, 2001). The field notes were important for interpretations of things being observed, a point Tacchi, et al., (2003) emphasizes. It was crucial that the field notes contained everything for further analysis.

During the research, I interacted and participated in daily activities such as interviewing, observing, storytelling and dialoguing. As I played out my roles, I also kept a detailed diary, which also acted as field notes, combining an account of my daily activities with observations of things being said and done during my fieldwork. I also facilitated a session where some youths drew up their individual communicative ecologies. "Communicative ecology puts increased emphasis on the meaning that can be derived from socio-cultural framing and analysis of the local context in which communication occurs in" (Tacchi, et al., as cited in Foth & Hearn, 2007). According to Tacchi, et al., (2003) and Tacchi (2006), understanding a community's communicative ecology is important for understanding the context in which

communication and information sits and how it is being used. Any initiative will better work if it works with the existing communication process, rather than creating competition with it.

“A communicative ecology also helps researchers to understand different communication patterns between elders, women folks, adult males, boys and girls differently and how a new initiative can work better with each group, considering specific aims and problems people faces” (Tacchi, et al., 2003, p. 16-17). It can help to study the effectiveness of the new initiative by seeing how communication processes change over time, but always that the initiative be effective, locally relevant and appropriate. Another group session entailed a community map, this accompanies the written profile of the community. Tacchi, et al., (2003) note that this method is appropriate to derive experiences and personal stories, using unstructured, but purposeful interview format and is initiated by the researcher and discussions guided by interviewee responses.

3.10 Project Design

The research project as being part of a case study of Kerea and Kintunu villages began in July 2018. The purpose of the research project is to investigate the implications of communication problems in the two respective rural villages involving the local people. Essentially, the project design was to demarcate and map-out the research sites of the villages.

The research began with a process of community entry that instigated the implementation of the research process. For the first two days, I familiarized myself and walked around the village and interact with the people telling stories and asking questions to each other to know more about the people. A team introduction was planned, where information about the project was imparted to the community. Before research consent was sought with the community leaders about the research project, an open invitation was made for interested

persons to participate in the research. Through negotiation and dialogue with the elders, preliminary social mapping using communicative ecology was conducted to map-out the village settings.

Most importantly, the research study was to seek answers to the research questions through focus groups, dialogue, observation, questionnaires, interviews and storytelling (Tacchi, et al. 2003; Tufte, 2017). Therefore, the research questions are there as a working guide to avoid straying from the research questions during the research study (Bradbury & Reason, 2001).

The research participants were identified and selected by the volunteer and the community leader to participate in the research. The research began as soon as we have enough participants for the focus groups and when the consent forms are signed. The focus group involve 18 participants with three groups of six participants in each group with an equal representation of genders. The three focus groups were given two research questions each to debate and discuss to reach a resolution on the research questions. Research questions 1-2 were allocated to group one to discuss. Questions 3-4 was discussed by group two and questions 5 was discussed by group three.

In the process of storytelling, both old and young males and females from the village attended the storytelling gathering. It is because the agenda of storytelling was about communication problems so both genders attended the gathering. For other rituals or tribal ceremonies, storytelling gatherings will exclude females from attending. Likewise, males will be excluded from female storytelling gatherings that the females will discuss female issues.

By focusing on the identified rural communities my research collected data that represented the views of the affected rural people in the two villages (Bradbury & Reason, 2001).

It is to inform a search for solutions that will improve communication services in rural areas. Overall, the research question remains as a focal point, with priority given to the research process that allows the rural communities and me as a researcher to trial the research on the ground through the qualitative research approach. The design of the research also looks at the parameters and the timeframe of the research as well (Wilson, 2008).

3.11 Data Organisation and Thematic Analysis

It is stated that thematic data analysis is defined as a process of visualizing trends, balancing figures, organizing and distributing new data to draw conclusion and decision making (Kolb, 2008). The process is also described by Liamputton (2009) as examining, sorting, categorizing, evaluating and comparing the coded data as well as reviewing new and recorded data trends.

All data collected were organized systematically, often with initial analysis being done in the field using the diary/field notes. In semi-structured interviews, it is not possible to predict the nature of the data that will be collected. Therefore, with any qualitative research project, thematic data analysis will be ongoing from the beginning of data collection (Liamputton, 2009).

Through the process of reading transcripts, writing, reporting, talking and discussing in supervision sessions, emerging patterns and themes from the literature review were identified. Generally, reviews were undertaken after each interview sessions to identify any new themes emerged or changed in interview techniques to evaluate the nature of information gathered from the participants to apply the most appropriate ways of analysing data trends (Liamputton, 2009).

The data collected were analysed with predetermined codes corresponding to the interview question numbers. The qualitative research question number 5 reads; "What is the impact of

these communication challenges on the volunteer's work during their placement in the hosing rural communities" Therefore, participant's responses to research question number 5 is inserted in code number 5 analysis sheet/folder. Same procedures were applied to categories all the research questions from 1 to 5 and connecting with the coding system to validate the thematic analysis of the research questions.

Interview quotes were selected and put in the analysis sheet according to the insights provided by the participants to the interview question. If quotes used terms relating to a specific code, it was inserted in the corresponding code in the analysis sheet. When a code is used it was highlighted with a different colour in the analysis sheet. However, some stories would overlap codes, and be used more than once and would be inserted in the corresponding code in the analysis sheet. This process required meticulous attention to the use of terms, underlying thoughts coming through the story/comments and crosschecking. This coding and colour coding system was used to analyse data to ensure other researchers could identify the researcher and interviewer if further insights will be needed in the future (Liamputton, 2009). The process of thematic analysing of the thematic coding and colour coding of the data is to bring together all data's gathered to compare data results and trends.

3.12 Ethical Considerations

All participants were informed of the research intention, methodologies and processes. All participating people signed the consent form or gave oral consent to participate in the research study. No amount of money was given for participating in the research, the donations made were in sincere regard for accommodation, meals, transport and emergencies.

The participants signed two copies of the consent forms before participating in the research, one copy of the consent form was given to the participants and I kept the other copy for filling. All interviews were transcribed as required. All confidential information and material of the participants will be kept secret in a password secured system.

During the research, there was no incidence of someone withdrawing from the research after they have initially signed or gave oral consent to participate in the research. The rural people really take ownership of the research and participated very well in all aspects of the research study.

As a cultural insider and Melanesian researcher, I applied my lived experience and appropriate cultural protocols in engaging with the people. For example, through establishing personal relationship, dialogue, respecting and understanding others and putting myself in the shoes of the people. During the research period, I did not act inappropriately but served the purpose of my trip appropriately.

Overall, the research was conducted by complying with Unitec's Research Ethics Committees guidelines. In addition, ethical considerations, apart from institutional ethics committees, were sought from a variety of literature on the ethical and moral process when conducting social sciences research in rural communities. Having said that, ethical clearance was given for this research by the Unitec's Ethics Committee in September 2018.

3.13 Community mapping and social networks

The community profiling and social mapping were done through observing, interacting and asking questions. The narrative profiling process unpacks various thoughts that I had as a cultural insider and includes voices from the community as well. These community profiling

and social mapping provide some answers to the main research question including the sub-questions posed in this research study. The main research question:

- "What are the communication needs of the National Volunteer Service, its network of skilled volunteers and the hosting rural communities in PNG?"

The following are sub-questions in order to answer the main key research question of the completed participatory research project:

- What are the communication needs of the stakeholders in the rural communities the National Volunteer Service provides services to?
- What is the existing communication infrastructure in the rural communities NVS is working with?
- What hinders access to communication services and information flow in the communities NVS is working with?
- What is the impact of the gaps in the communication flow on the people living in the communities hosting NVS volunteers?
- What is the impact of these communication challenges on the volunteers' work during their placement in the communities?

The narrative community profiling and social mapping began after a community meeting with the leaders and elders of the two rural communities. This exercise shows the community infrastructures of the two villages including primary schools, clinic, churches, community market place, rivers, vegetable gardens and the surrounding environment.

The following are findings from the communicative ecology mapping unpacking the targeted communities' communication processes and social networks.

This is an important collection of data as it reveals the means and mediums through which information is communicated and shared. The communicative ecology model enables me to take a holistic approach to understand the dynamic interrelationship between social dimensions, discourses and communication technology in both physical and digital environments. The ecologies are not isolated entities, the similarities, differences, interrelationships and transactions between ecologies can be examined. A richer understanding can then be derived from the micro and macro level analysis of the social and cultural context of communication (Foth & Hearn, 2007).

As in an indigenous research methodology, the whole research journey is a progression of thought, reflection and appreciation for values that people had developed over time and through changes. Unless you acknowledge these values and discuss these with them, the indigenous research space becomes limited and irrelevant. Some of these values include respect for authority and spaces in the community such as church grounds, secret ritual places, cemetery and spiritual sites and communal meeting house. The values of reciprocity, sharing of food and ideas and value of relationships of families, friends, kinships and tribes. Therefore, the narrative is the best space in the thesis to reveal the values held in community well-being and enriches the research findings. Let us focus and begin.

3.14 An Ethnographic Presentation of the Research Journey

The negotiation for my field research journey began about the time I was piecing together my ethics application, literature review and methodological framework. While the limited literature available helped, I still felt inadequate and found that the fieldwork filled in much of the gaps in my understanding of the process. I realized that answering my main research question of "what are the communication needs of the National Volunteer Service, its

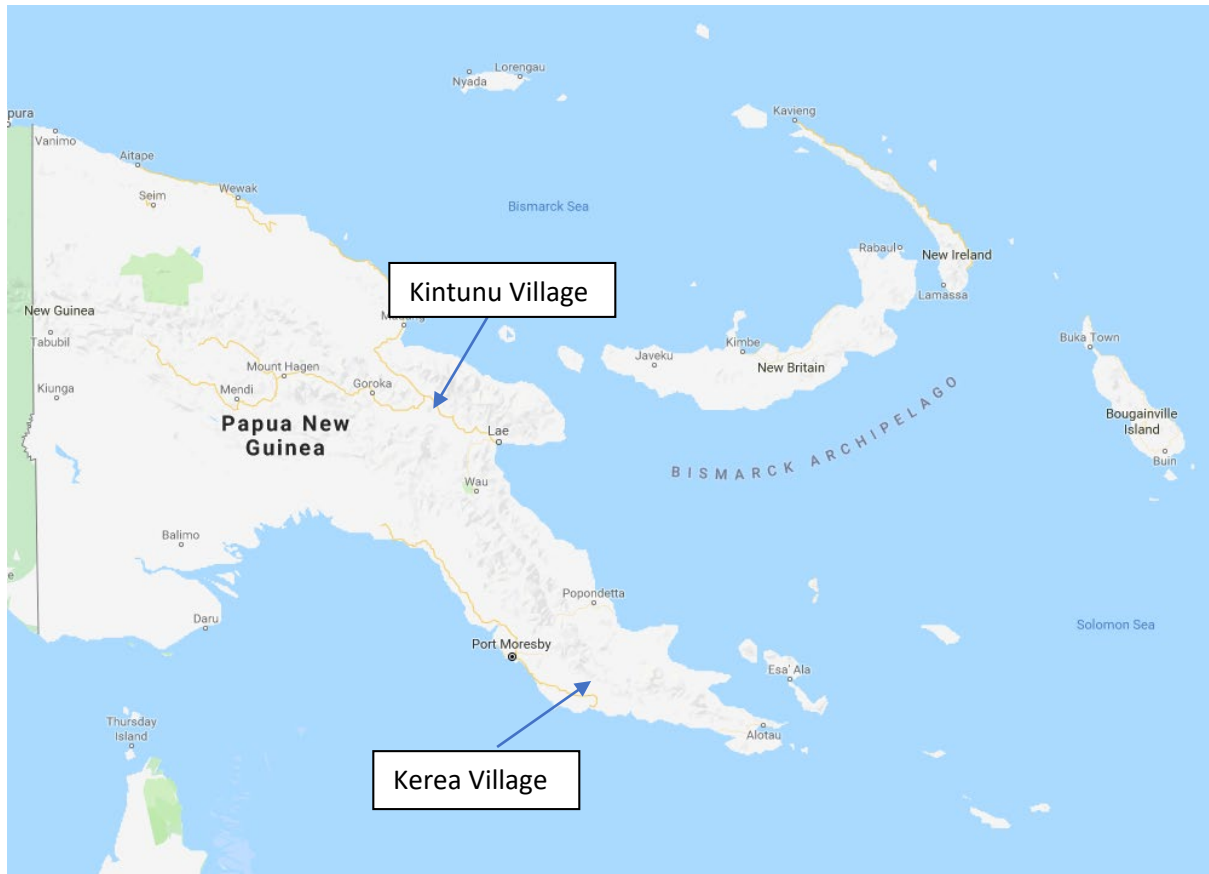
network of skilled volunteers and the hosting rural communities in PNG" was better experienced than read.

Prior to my research trip, I was in constant communication with my colleagues at the National Volunteer Service office in Port Moresby about my proposed research journey, and they contacted the volunteers in the respective hosting rural communities and arranged for my arrival.

Before entering the respective communities, I was indeed worried about what the people's reaction would be in relation to their cultures and customs. However, upon arrival in the community and meeting the people and the community leaders I feel accepted and welcomed in the community through the people's attitudes and gestures.

CHAPTER 4: RESEARCH FINDINGS

4.1 Introduction



Map of PNG Scale 200 km / 120 miles – [lonelyplanet.com](https://www.lonelyplanet.com)

This chapter presents the findings from the qualitative research that I conducted in two rural communities in PNG. The first community Kerea is located in the coastal region and the second community Kintunu is located in the Highlands region of the country, as shown in the above map. The cultures and daily living situations of the people were very different from each other. The actual qualitative research involving the local people of the two communities was conducted between August and September 2018. These findings are presented in a

narrative and ethnographic way in keeping with the indigenous research approach, as described in Chapter 3.

Both volunteer-hosting rural villages, Kerea and Kintunu, have been experiencing communication problems for a long time due to poor communication services in the two communities. Because of poor communication services, NVS could not maintain direct regular contact with the volunteers in the two communities. NVS has been sending delayed messages when the weather is good and reception is clear and has been maintaining indirect contact with the two volunteers using other alternative communication mediums. The alternative communication mediums are such as radios, letters and relaying information to other people to pass on the messages to the volunteers and stakeholders in the rural communities. These issues were what drove me to carry out this investigation.

Due to communication problems the people at Kerea village interact with each other, communicate, and discuss community issues using face-to-face communication. In addition, the people at Kintunu village use face-to-face communication while interacting with each other in the village. Face-to-face communication is the most commonly used communication medium in both villages.

4.2 Village 1 Kerea

Kerea village is in the central province and the nearest city is Port Moresby. It will take approximately three hours' drive from Port Moresby city to go to Kerea village. The village is headed by a village chief and supported by church pastors and the village peace mediation team. The population of the village is around 900 as recorded by the volunteer. The villagers live off the land through subsistence farming and their main staple food is the green banana. The people grow various green vegetables including surplus root crops. The village people

earn income by selling their cash crops and vegetables at the Port Moresby city open market. Another commodity that the people in Kerea village sell to supplement their living is betel nut. The betel nut chewing is valued by the majority of the people in PNG and can attract good income from the betel nut sales. The betel nut tree is grown only in the coastal areas of the country. Kerea village people are fortunate to grow and harvest the betel nut and sell them at the designated market for the people to buy and chew.

The Kerea village is on the right-hand side of the big Kerea river that flows down from the mountains that separate the villages. The village people communicate, share and help each other in their day-to-day living in the village. The people are daily using the river as a means of transport route to ferry their vegetables and goods to the markets using their wooden canoes and banana boats. The river is also seen as a communication flowing route where the people derive new information from going to the market using the river. The normal daily routine of the village people is gardening and the people are seen to be devoted Christians and on Saturdays and Sundays, the people attend church services. The Seventh Day Adventist (SDA) church members attend church service on Saturdays, while the rest of the people attend other denominations on Sundays.

The road network from Port Moresby to the village is in poor condition and has many potholes and transport systems are not scheduled and regulated to provide timely transport service. This is because public transports in PNG are owned and operated by private individuals. That means a passenger can wait for two to three hours or a day to get on a next available public transport to go to his or her destination. The road system in the rural areas of PNG are gravel roads and during the wet season, the roads usually become muddy and slippery.

making the journey very slow, uncomfortable and dangerous when the public transport navigates the slippery road.

4.3 Village 1 Consultation and Social Mapping

In Kerea village, I completed all the formalities of meeting and greeting the community leader and the people. I explained and informed the people about the purpose of my visit to their village and how I would interact and behave with them during my stay in the village. The community leader responded and said, "my people have been deprived from accessing reliable communication services for a long time so we welcome you to conduct the research without hindrance". The leader stressed further and said the people will cooperate with me and participate in the research to find the implications to the communication problems. After the consultation, we reached a collective understanding of all aspects and processes of the research and we agreed to select the research participants.

The community leader and the volunteer based on their community experience selected the research participants. As an outsider, I did not participate in the participant's selection process. I only informed the leader and the volunteer to select an equal number of both genders to participate in the research. Based on my advice the leader and the volunteer selected equal number of participants from a range of different age group of genders. After the research participant's selection process was completed, I informed the participants about the ground rules of the research. One of the important ground rules I emphasized to the participants was about their participation in the research would be free without any money will be paid for their participation. The participants overwhelmingly agreed and participated in qualitative research free.

In Kerea village I find out that the village is fortunate to have a road link from Port Moresby city, to the village. There is a village elementary school that caters for children's age ranging from year four to six and a village primary school that accommodate children's age ranging from year seven to fourteen. There was an Aid-Post managed by the volunteer at Kerea village. Aid-Post is a shed where the village people come to get medical treatment and the volunteer diagnose and refer people to other urban hospitals, Seventh Day Adventist (SDA) and United Churches were located there, a big river, number of villages on either side of the river, a big man-made lake, gardens, a village sporting field, a village market and the surrounding environments. The village does not have permanent electricity supply, few families have solar power panels to light up their homes, and communication service reception is very poor.

During the research, I involved the local people in both of the two villages in order to use their local knowledge to collectively find the nature and implications that are hindering and creating communication gaps between the stakeholders. I listed and delivered various research methods and methodologies because I want to use the appropriate methods relevant to the context upon arrival at the research site.

Table 1 Methods Table

Methods	Kerea Village	Kintunu Village
Observation	Yes	Yes
Focus Group	Yes	No
Interview	Yes	Yes
Questionnaire	Yes	No
Storytelling	Yes	Yes

The methods and methodologies that I applied involving the research participants at Kerea and Kintunu villages are as follows: observation, focus group, interviews, questionnaires and storytelling. (See Table 1) of methods applied in each village.

4.4 Village 1 Findings and Data from Observations

While applying the observation research approach I assess and record the communicative ecology of the people in their daily routines. I interact and dialogue with the people in the village, at the village market place and anywhere in the village. I observed that people interact with each other and use face-to-face communication daily in their environment. Communication and sharing is an important aspect that binds the people together and gives the people a sense of identity, ownership and belonging. It also enables the people to express their realities, who they are and what they need as human beings through expressing their emotions. The people congregate at village market place, school, village sporting field, churches, and gardens and in other village ceremonies and communicate with each other.

I observed that the people also listen to community radio broadcasts and hear new information about issues such as health, education, agriculture, eco-tourism and other news on development issues to make informed decisions. The volunteer explained that government extension officers usually visit Kerea village and do awareness raising on social and development issues. For instance, health extension officers at times conduct outreach clinics, do awareness raising on health issues, and disseminate information on healthy living to the people. The dissemination of information to the people includes improving sanitation and hygiene, nutritious cooking, family planning and general cleanliness to prevent diseases. Likewise, agriculture extension officers usually go to the village, teach and disseminate skills and information on growing better food crops and harvesting to sustain food security. The

people were fortunate to learn new information on healthy living from the rural out-reach health officers and farming skills from the agriculture extension officers.

During my stay in Kerea village, I too become a source of new information to the people as I interact and communicate regularly with the village leader, the volunteer and the people. The people were curious to know and asked me why I come to their village and I explained the purpose of my visit. The people also insisted to know news and information on any issues and I told the people news about New Zealand.

The communicative ecology and social network of the people at Kerea village is intact and alive. Because the people were communicating face-to-face with each other on a daily basis in their environment. The people who go to the town market to sell their vegetables derive new information from market workers, buyers and other traders and impart the information to the people in the village.

Through observing while at Kerea village, I identify community influencers who are deriving new information from outside sources and disseminating the information to the rural people. The information influencers are community leaders, teachers, church leaders, and the volunteer and other people who have outside contacts.

I also observed what basic community infrastructure and services are there for the people to use; such as schools, roads, health facilities and other services to improve the people's livelihoods. I found an unmaintained and run-down school, a clinic and poor gravel road is available and the community people are using it. During the interviews, people said that mobile communication is very poor and improving the communication service will enable them to have access to better communication service. They also said that building of more

communication reception towers would boost and increase the communication reception coverage in the village for the people to make calls.

While I was at Kerea village, there was a death on the other side of the river and the leader of Kerea village in a "loud voice chanted to his village people to contribute money and raw garden foods". The contribution of cash and kind was to support the dead women's relatives at the neighbouring village on the other side of the river. The next day the people come together and contributed cash and garden foods and take it over to the dead women's village. The contributions were a kind of collective social insurance taken by the communities to support each other to stabilize and resolve community issues in a resilient way. That was a clear picture of communicative ecology of Kerea village that I observed during my stay in the village.

4.5 Village 1 Findings and Data from Focus Group Discussion

In the focus group, eighteen participants were selected to participate with an equal number of both males and females. The focus group was divided into three groups of six participants each to a group. The three focus groups were given the same research question each for them to discuss their views on communication problems. Each focus group discuss the given research question and presented their collective views as research data. The research question given to the three focus groups to discuss asked: "what is the existing communication infrastructure in the rural communities NVS is working with". This was translated so that people understood.

The most outstanding finding from the focus group is that two out of the three focus group reported that poor communication infrastructure is affecting them and demand for improved communication service. The first focus group said that "they could not maintain contact with

their immediate families in other places" and they said, "poor communication is depriving them from accessing new information and services to improve their livelihoods". The second focus group stated, "they could not contact schools to enrol their children, contact emergency services during accidents and snake bites to take the victims to hospitals and contact wholesale vegetable buyers to sell their vegetables". They further stressed, "poor communication is a setback for all the people in the village". This response to the research question reflected the fact that the two focus groups demand the existing communication infrastructure to be improved so that the people can access communication service to better their living. Currently, due to poor communication, the people at Kerea village are forced to go up the mountains and climb trees to access communication reception to make calls.

The last remaining mini focus group reported that "utilizing locally available natural resources such as hydro, windmill and solar to enable communication flow is better". The natural resources will produce renewable energy to power communication technology and infrastructure to enable communication flow is better and cheaper, rather than constructing expensive communication reception towers, which is too expensive to maintain. They said, "producing power from renewable energy is clean and environmentally friendly".

4.6 Village 1 Findings and Data from Interviews

In Kerea village, I interviewed twenty participants during the research using the five research interview questions. The five research interview questions are as follows:

1. What are the communication needs of the stakeholders in the rural communities the National Volunteer Service provides services to?

Example response: N.U. (age 45 m) said, "improved communication is a need for the village to maintain contact with stakeholders".

2. What is the existing communication infrastructure in the rural communities NVS is working with?

Example response: P.J. (age 27 f) said that "the existing communication service in the village is very poor and the people are climbing mountains and trees to access the reception to make call".

3. What hinders access to communication services and information flow in the communities NVS is working with?

Example response: T.A. (age 21 m) said that "there is not enough reception coverage in the village to transmit information from the sender to the receiver".

4. What is the impact of the gaps in the communication flow on the people living in the communities hosting NVS volunteers?

Example response: G.H. (age 36 f) said that "due to communication gaps the people could not maintain contact with each other and stakeholders".

5. What is the impact of these communication challenges on the volunteers' work during their placement in the communities?

Example response: I.I. (age 42 m) who is the volunteer said that "poor communication is affecting my work in serving the people".

The participants expressed their individual views about the communication challenges affecting them and the village as a whole. The poor communication service is hindering the people to maintain contact with their families, friends, and service providers, and to contact buyers to sell their vegetables in bulk, to contact ambulance service in emergency cases and to access new information through their mobile phones to improve their situation.

One interview participant G. J. (age 28 m) said that "one boy from the village was bitten by a snake and we could not make calls to arrange a vehicle to take him to the hospital and the boy died, if we quickly make contact and arrange the vehicle the boy would be alive". The next interviewee J. M. (age 22 f) said that "the local vegetable buyer cheated me and buy my vegetables cheaply; if the communication service was reliable I could have contact the price controller and argue with the buyer". The other interviewee H. N. (age 19 m) said that "by now I should be in school but due to communication problem I missed my opportunity". Other interview participants expressed similar sentiments.

The most interesting findings from the interviews is that seventeen out of twenty participants reported communication problems are depriving them to maintain regular contact with their families, friends, emergency services and other stakeholders. This response reflected the fact that the seventeen participants are impacted by the poor communication service and demanded for improved communication service in the village. The three remaining participants put it " *mepla ino save lo usim mobile*" meaning the three participants do not know how to use mobile phones.

Table 2 Interview Data from Kerea Village

20 Participants	Responses
17 Participants	Demanded for improved com/service
3 participants	Do not know how to use mobile phones
=20	
Data 17	Majority of participants want reliable com/service

4.7 Village 1 Findings and Data from Questionnaires

Thirty questionnaires were distributed and twenty-seven completed questionnaires were returned. Out of the twenty-seven fifteen participants wanted the poor communication service to be improved urgently or very urgently. The participants also explained what type

of communication mediums they want to use. 25 participants wanted mobile, as it was faster and reliable, while 2 said they preferred a landline.

Examples of their reasons for needing better communication were: "I could not make calls and arrange a vehicle to take my wife to the hospital to give birth," instead his wife gave birth in the village. The next participant said that, "I could not contact the emergency services during the flooding due to poor communication service". Another participant said that "communication is a key sector and is affecting my life in many ways". Other participants expressed their thoughts and feelings about the communication challenges similarly.

The key finding from the questionnaires is that all twenty-seven participants who participated in the questionnaire research approach demanded improved communication service for the village. This overwhelming response shows the fact that the participants and the communities needs communication service that would act as a catalyst to influence social change in their village.

4.8 Village 1 Findings and Data from Storytelling

During the research, I also used storytelling to collect data. Through storytelling, I collected rich data because everybody participated and have a voice including the marginalized. The most interesting findings from the storytelling is that the participants have part of the story and express it in the storytelling gathering. In the storytelling session, the "people declared to provide free labour if the government or mobile company wants to erect communication reception towers to improve communication service in the village". One participant asked, "who is going to improve our communication problem and when are we going to use and access improved communication service". Another participant said, "Our local elected member will help us with funding to get improved communication services".

This response again reflected the fact that people need reliable communication service as the existing communication service in the village is very poor. Maintaining regular two-way communication and information flow will influence the people to change their way of living.

4.9 Village 1 Findings and Data from NVS Volunteer

During the research, I stayed with the volunteer and I interviewed the volunteer in order to find-out the implication that is causing the communication problems and making the volunteers' work very difficult. The implication of the communication problem was due to poor communication service reception in the village. Below is what the volunteer told me in 'Pidgin language' about the communication problem impacting and depriving him and the people from maintaining contact with families, stakeholders and from receiving new information from other sources.

'English translation'

"I was happy to partner in conducting the research to investigate the nature and implication of the communication problems. The communication reception is very poor in the village and making his work in serving the people very difficult. If I want to make calls, I have to climb a mountain or a tree to access the communication reception to make calls to NVS office or to the medical dispensary centre to get new medical supplies. When the communication service is improved, I will serve the people better in the village. Because I will use the mobile phone to order and get the much-needed medical supplies in advance before the basic medication from the village clinic run-out of stock. As an agent of change in the village, I will also use my mobile to talk

to other relevant offices and service providers to bring goods and services to the village".

Despite poor communication service, the volunteer is committed and consistently delivering basic health services to the people. For instance, in order to get medical supplies for the village clinic, the volunteer usually rides on a public motor vehicle to the city, get the medical supplies, and return to the village. The expense of the trip is often met by the volunteer and few drivers in the village 'in solidarity' sometimes give the volunteer a free ride.

Overall, the most interesting findings from Kerea village while conducting the research is that 95% of the people participated in various research methods demanded for an improved communication service. This response from the people reflected the fact that the people want the existing communication infrastructure to be improved to enable communication service to flow into the village.

4.10 Village 2 Kintunu

Kintunu village is in the Highlands region of PNG and the nearest town is Goroka. It will take approximately three hours' drive from Goroka town to go to Kintunu village. The population of the village is fourteen thousand as revealed by the volunteer. The village people live in small family hamlets and is typical that the village is headed by a village leader and supported by church leaders and other aspiring young leaders of the village. Like other Papua New Guineans, the people live off the land through subsistence farming to sustain their living.

The land at Kintunu village is not fertile or conducive to plant many types of vegetables due to dry sandy type soil. The land is covered by savannah grass with few green vegetation and the weather is usually very hot in the area. The people's staple food is sweet potatoes and yam, as these two crops yield well in sandy type soil and weather. During rainy seasons, green

vegetables naturally sprout in the area that the people consume. The normal daily living of the people is gardening and during the weekends, the people attend church services.

The commodity that the people rely on to engage in economic activity in Kintunu village is coffee. The commodity is an annual seasonal tree crop and around March to June, the people harvest the coffee cherries, pulp the cherries, and dry them. The people earn their income by selling the dried coffee beans to the wholesale coffee buyers in Goroka town. In a year a family who have three to four, plots of coffee gardens may approximately earn K 20,000 equivalent to \$ 10,000 New Zealand dollars. However, communication is a major problem in trading their coffee beans because the families could not negotiate with the wholesale coffee buyers for a better deal. Because of communication problems, the people have no means to negotiate for a better deal and usually sell their coffee beans to any wholesale coffee buyers that usually cheat the people. If the communication service was reliable the people would have contacted the government price controller beforehand in order to sell their coffee beans to avoid cheating by the wholesale coffee buyers.

The people communicate face-to-face and support each other by building houses and making gardens. For example, if a family have prepared a plot of land for planting crops the people will form a working bee and help the family plant the crops free. Helping and sharing is deeply rooted and if a family have surplus food in the house, they will share a plate with the neighbour's in the village. The general life situation of the rural people is very simple as everything is free at the village level and at the people's disposal. Communication is again a big problem in the village and separating the families apart. For instance, if a family member migrates to urban centre's or a child go to school in other provinces the families in the village will not maintain contact with each other again due to unreliable communication service. The

community leader said "the communication problem is making the people's lives very miserable".

4.11 Village 2 Consultation and Social Mapping

After arriving at Kintunu village, I stayed with the volunteer, the next morning the volunteer informed the community leader and the people about my arrival, and the following day I meet and greet the people. During that day, I informed the community about the purpose of my visit and how I would interact with them to conduct the research. At the same time, the village leader welcomed me and told his people to cooperate with me during the research. After greeting and welcoming each other, we had a meeting to discuss the process of the research. In the meeting, I told the people about the ground rules of the research. The two important ground rules I mentioned during the meeting was about selecting the research participants and no one will be paid money before or after the research.

After reaching a collective understanding of the two important ground rules, the people decide to participate in the research free and the volunteer and the community leader select the participants. I advised the volunteer and the leader to select an equal number of genders to participate in the research using some selection criteria. The participant's selection criteria were a potential participant should have lived in the community for more than five years and he or she should be more than 18 years old. I abstained from selecting the participants because, as an outsider, I do not know the background of the potential research participants. Based on my advice equal number of gender participants were selected with age ranging from young and old to participate in the research.

While in Kintunu village, I conducted a communicative ecology and social mapping and identify how people interact and communicate with each other and what infrastructure and

basic services are available in the village. At Kintunu village, I discovered that there is a primary school, a Seventh Day Adventist Church, a village health clinic, a roadside village market, an elementary school and hamlets scattered around the savannah grassland. There is a small river flowing down the savannah grassland that is used for drinking, washing and bathing. Kintunu village is located at a higher altitude where the weather is always very hot during the day.

Through the social mapping exercise, I discovered that there is no electricity service in the village and communication service is again very poor at Kintunu village. Despite, lack of permanent electricity service in the village the people use solar power to light their homes. The people could not instantly make calls to their friends from the village, but they have to walk for thirty minutes to a designated place to access the communication reception to make calls. While in the village I tried to make calls to the NVS office and to my family, but I could not make calls and the volunteer escorted me to the designated place and I make the calls.

The people of the village had been deprived of their basic human rights needs to goods and services such as communication service and other basic needs for a long time. The people need a functioning and accessible communication service at their doorstep to maintain regular contact, rather than walking further distance to make calls. However, despite poor communication service and lack of other communication mediums and infrastructure for the people to send messages and receive new information, the communicative ecology of the people is sustained within their environment. The people use common face-to-face communication to communicate with each other in the village and in other social gatherings. The people also hear new information from influencers and community radios. Government

extension officers usually visit the village, conduct awareness raising, and disseminate information on health, education and agriculture to the people.

One weekend after church service, I observed a volleyball game played between villages and the people were shouting and supporting their teams. There were lots of fun during the game and the opposing teams were challenging each other. The interaction and joy-filled atmosphere of the people demonstrate the communicative ecology of the community that I witnessed and participate in.

The qualitative research is to collectively find the nature and implication that is hindering and creating communication gaps between the stakeholders and the communities. Due to the situation at Kintunu village, being large and widespread, I applied only three research methods to collect data. The three methods that I apply involving the local people include interview, observation and storytelling. (Refer to the methods table 1).

4.12 Village 2 Findings and Data from Observations

While applying the observation research approach at Kintunu village I observed and assessed the communicative ecology of the people in their daily routines. I interacted and dialogued with the people in any part of the village where people congregate. I discovered that the people interact and share with each other using common face-to-face communication daily. Communication and sharing embed the people together in one accord in preserving their collective village identity. It also enables the people to express their needs and realities, who they are and what they need as human beings to improve their living.

It is usual that the people congregate at the village market place and in other community gatherings such as weddings and funerals in the village and communicate with each other. I found out that the source of new information flowing into Kintunu village is through

influencers such as community leaders, church workers, teachers and the volunteer. In addition, the village people who go to the town market to sell their vegetables impart new information to the village and the village truck drivers who ferry passengers to and from the villages.

Interviewees told me that people also hear new information from community radios and other sources to make informed decisions. The people in Kintunu village grow coffee in large scale as a commodity, so agriculture extension officers usually visit the village and educate the people on pruning coffee trees for better harvest. Other government and NGO groups sometimes go to the village and do awareness raising and disseminate information on social and development issues.

During my stay in the village, I become a new source of information to the people as I interact and communicate regularly with the community leader, the volunteer and the people. I told the people about the purpose of my visit to their village and how I would engage with them in the research. I also informed the people that I would present the research findings to the NVS management for deliberation.

The communicative ecology and social network of Kintunu village is very vibrant and moving. As the volunteer usually organize village sports, every weekend and the village people usually come together and play sports for enjoyment.

Through observation, I also assess what basic community infrastructure and social services are available for the people to use in the village. For instance, infrastructure and social services like schools, roads, health facilities, and electricity and communication services. I discovered that unmaintained road infrastructure and run-down school with broken walls and

a health clinic with limited medication to treat the rural people were available in the village and the people are using it.

Most importantly, I found that communication service is very poor for the people to use in the village. If the people want to make calls, they have to walk for thirty minutes to a designated place in order to access the communication reception to use their mobiles. Improving communication problems will enable people to access reliable communication services. From my observation and assessment, more reception towers are needed closure to the village. The reception towers will inevitably increase the capacity of the communication reception to enable the people to use their mobile phones instantly from the village, rather than walking further distance to a designated place to make calls.

4.13 Village 2: Findings and Data from Interviews

In Kintunu village, I interviewed twelve participants during the research using the same five research interview questions as in Kerea village. One of the research questions reads: "what is the impact of the gaps in the communication flow on the people living in the communities hosting NVS volunteers?" The interviewees explained that the communication gaps are hindering the people to maintain contact with families, stakeholders, other service providers, traders and from receiving new information through their mobile phones to make informed decisions.

One interviewee P. M. (age 52 m) stated that "I could not use my mobile to contact wholesale coffee buyers to negotiate for a better deal to sell his coffee bags". The other participant K. O. (age 34 m) stated that "communication problem is impacting his life as I could not maintain contact with his children who are attending schools in the urban areas".

The most interesting findings from the participants interviewed is that eleven out of twelve participants reported that communication gaps are depriving them to get new information and to maintain contact with service providers and families. This response reflected the fact that the majority of eleven participants are affected by the poor communication service and overwhelmingly demanded for improved communication service. The one remaining participant T. J. (age 24 f) "said that he does not have a mobile phone to use".

Table 3 Interview Data from Kintunu Village

12 Participants	Responses
11 Participants	Want better accessible com/service
1 participant	Does not have a mobile phone to use
=12	
Data 11	Majority of participants expect improved com/service

4.14 Village 2: Findings and Data from Storytelling

Data collection using storytelling encourages inclusive community participation and in Kintunu village, I use storytelling as one of the methods to collect data. Storytelling in the village level is a forum where the people discuss village issues to resolve it. In one of the storytelling gatherings in the volunteers' house, we discussed the communication problem. The participants expressed their frustration through the storytelling session about the poor communication service in the village and demanded improved communication service.

The findings from the storytelling session implies that the participants want reliable and accessible communication service that will enable them to maintain contact with their families and friends. For example, one participant expressed a point and said "who will provide funding to improve the existing poor communication service" and another participant responded and "said we will mobilize and negotiate with our local elected member of Parliament to provide funding to improve the poor communication service" another

participant "said that we can contribute and raise money as a sweat equity for the communication project". That is an example of how storytelling discussion about poor communication held at Kintunu village. Individual participants have part of the story and in such forums; they come together collectively and express their stories to find a solution to an issue or problem.

Currently, the people explained that they could not make instant calls from the village due to poor communication service. Therefore, in the storytelling session, all the people expressed that "we want better communication service to maintain regular contact with families, friends and stakeholders".

These overwhelming collective responses reflected the fact that people need improved communication service. The existing communication service in the village is unreliable and erecting additional communication reception towers will boost the reception coverage for the people to use to make calls. New information flow into the rural communities will act as a catalyst of change and will inevitably transform the peoples living situation.

4.15 Village 2: Findings and Data from NVS Volunteer

I stayed with volunteer C. G. (age 42 m) at Kintunu village and I interviewed him in order to find-out the implication that is causing the communication problems and making the volunteers' work in serving the people very difficult. The implication of the communication problem was due to poor communication service reception in the village. I also used my mobile phone to contact my family from the village but I could not access the reception to contact my family. I found out that the capacity of the communication reception is not enough in the village area to transfer incoming and outgoing mobile messages and calls.

The communication problem is depriving the volunteer and the people from maintaining contact with families, friends, and service providers and from receiving new information from other sources to effect social change. Below is what the volunteer Charles told me in 'Pidgin Language' about the communication problems he experienced in his line of volunteer duty in the village.

English translation

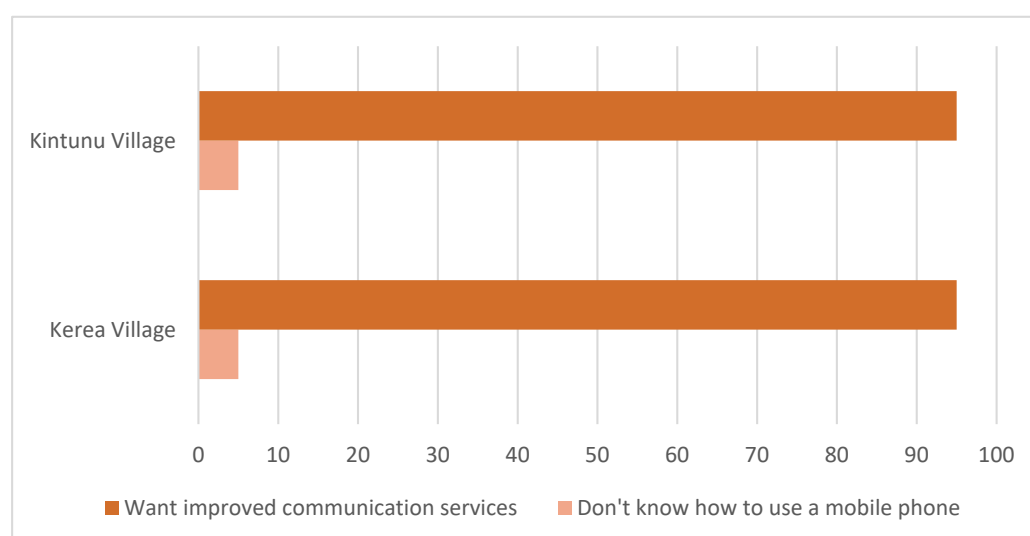
"Thank you for coming to the village to conduct the research to find-out the implication on communication services. Communication service in the village is very poor and making my work in organizing games for the young people challenging. Because I could not instantly make contact with other villages to arrange the inter-village, sporting games due to communication problems. If I want to make calls, I have to walk for thirty minutes further away to a designated place to make calls. If the government maintain and improve the communication service, it will be good for our situation. I want to tell you "government must rectify the poor communication service".

He also explained that the people of Kintunu earn their income by selling dried coffee beans to the whole buyers in Goroka town. The families in the village sell their coffee beans to buy school fees for their children, to buy store goods and other expenses to supplement their living. However, communication is a major problem in trading their coffee beans because the families could not negotiate with the wholesale coffee buyers for a better deal. Because of communication problems, the people have no means and option to negotiate for a better deal with wholesale coffee buyers. If the communication service was reliable and accessible the people would have bargain for better deal with the wholesale coffee buyers.

This response reflected the volunteer's view and experience on the poor communication service that is affecting the people in the village. Improved communication service will enhance the people's living and the volunteer will effectively serve the people while maintaining contact with NVS and other service providers regularly. While hearing and seeing through the eyes of the volunteer, the people need better communication services. The improved communication services will inevitably enable new information and services to flow into the village to generally transform the social and economic situation of the people.

However, the poor communication service in the village did not hinder the volunteer from organizing inter-village sports for the young people. The volunteer is committed to his work and usually walk from village to village informing young people to form a team to challenge other village teams. During the weekends, all the village teams will come together and challenge each other at the village sporting field. The volunteer is promoting sports in the village level to divert the young people from resorting to other illegal activities such as alcohol, prostitution and drug abuses.

Figure 2: Triangulating overall thematic data of the two villages



The overwhelming findings from Kerea and Kintunu villages is that 95% of the affected people from each village want better communication service (figure 2). This response reflected the fact that people want to access better communication services to improve their livelihoods.

4.16 Findings and Data: National Volunteer Service (NVS)

The National Volunteer Service is a government entity that bi-annually recruits qualified and skilled volunteers and places them in the hosting rural communities in the country through the provision of community volunteer engagement programme since 1990. The range of skilled volunteers recruited to serve the rural people are in various fields such as community health workers, eco-tourism officers, agriculture officers and adult literacy teachers.

There are thirty volunteers currently serving in the rural areas of the country, including the two villages Kerea and Kintunu that I recently conducted the research.

Communication is a key sector and due to communication problems, NVS could not maintain regular contact with the volunteers in some of the hosting rural communities. The communication problems are affecting the work of the volunteers in the rural communities, NVS and other stakeholders. The communication problems have motivated NVS to conduct qualitative research to find out the implications that are causing communication problems. Therefore, I was endorsed by the NVS management to conduct qualitative research involving the local people to collectively find-out the implications in order to suggest solutions to the communication problems. NVS is serious in its endeavour and investing resources to improve communication problems.

During the research in the two respective communities, I have interacted with the people and collected data that represent the people's collective views on the communication problems. The most interesting findings from the data collected is that 95% of the people in each of the

two volunteer hosting rural communities demanded improved communication services. The research findings will be presented to the NVS management for deliberation and action.

The improved communication services will enable all the stakeholders in the provision of rural volunteer engagement programme to maintain regular contact to advance the volunteering service to improve the people's living standard. The existing communication services in the two villages are unreliable, as mobile phone communication could not penetrate. The penetration of mobile phone communication in the communities will enable the stakeholders to maintain regular contact with NVS and other service providers for the benefit of the rural people. Improving the existing communication services in the two villages will increase the capacity of the communication reception enabling mobile communication penetration.

While analysing the overall research finding data trends from the two volunteer hosting rural communities of Kerea and Kintunu. I discovered that 95% of the people in each of the two communities want better communication services. This overwhelming response from the two villages reflected the fact that people want to improve and change their living for a better future.

4.17 Conclusion

The qualitative research was aimed and conducted at Kerea and Kintunu villages. Village leaders head the structure and leadership of the villages. The two respective villages were hosting two of the NVS volunteers out of the thirty volunteers currently serving in the rural communities in the country. However, NVS could not maintain regular contact with the two volunteers and the communities due to poor communication services in the two villages. Therefore, the research was conducted to assess and explore the implications that is causing this problem.

The research involved the people from the two communities and the people have expressed their collective views on the communication problems. The data collected from the two villages will be processed and presented to the NVS and the PNG government for planning and deliberation. The improving of communication services in the two villages will inevitably enable the people to access new information and services to better their living by making informed decisions.

CHAPTER 5: ANALYSIS and DISCUSSION

5.1 Introduction

In bringing this thesis together, this chapter presents a discussion and analysis of key issues pertinent to the research questions raised by the research participants and the people at Kerea and Kintunu villages. The research initiative taken was basically seeking ways to improve communication services in the volunteer hosting rural communities in PNG. Supporting the main research question, this chapter will discuss issues from the findings chapter around the following emerging questions;

- What can be concluded from the participants' remarks?
- How can we improve communication services in the volunteer hosting communities?
- What are the social factors that influence the application of the research study?

The central focus of this chapter will be on the community's needs, values and relationships as fundamental to suggesting solutions to the communication problems. The aim is to validate these components within an indigenous research paradigm as both axiology and methodology of initiation, processes and importantly as appreciative of the realities. Communities' values and relationships are significantly influenced by the changing times and need to be reasserted within the realities of the communities and negotiated regularly.

This chapter will also expand on the broader aspects of the findings that relate to communication gaps and challenges faced in volunteer hosting rural communities. This research project has shown how community participation in community projects and initiatives can open up a space for continued resilient interaction and negotiation to resolve

community issues. The collective community participation and the voice of the impacted rural people are presented here to improve the communication problems.

Again, this chapter is presented in a progression of thought from one point to another, much like 'storytelling' where discussions build on the underlying issue to a point of conclusion.

National Volunteer Service originally explained that they were unable to maintain direct contact with the volunteers in the two volunteer hosting communities. That was the reason that triggered my motivation to conduct qualitative research to find out what is causing the communication gaps and suggest improvements. The two volunteer hosting rural villages Kerea and Kintunu were experiencing communication problems due to poor communication reception.

Through the general community meetings, we collectively conclude that the government should build more communication reception towers closure to the villages to boost the communication reception. The constructing of reception towers will enable the people to access full communication reception coverage to make outgoing and receive incoming calls clearly. The communication reception in both villages is very poor due to lack of communication reception towers closure to the villages. Because of poor reception in the villages, the people have to go up the mountain or walk to a designated place in order to access the reception to make calls.

Improving the communication problems will enable the villagers to maintain regular contact with families, friends and stakeholders to promote social change in the villages. As the communication service is a key sector that will enable rural people to use to do economic activities to change their livelihoods. Furthermore, the people will use the communication

service to ensure community safety by contacting emergency services when experiencing natural disasters and calamities.

I also assessed and mapped the communicative ecology of the people in the two communities. As expected, I saw that the people in the two communities commonly use face-to-face communication. The people interact and share with each other in their environment. The people sometimes receive new information from influencers such as community leaders, teachers, and church leaders, volunteer and from people who have outside contact. Community radios are other information sources that people derive news and information. During my stay in the village, I become a new information source for the people as I interact and tell stories to the people about the research and the processes involved. The people have never participated and experienced such a situation and the research was the people's first experience to participate.

The people at Kerea and Kintunu villages support and share with each other in their respective communities. The people are resilient in resolving community issues and problems through collective approaches. For example, at Kerea village the people contributed cash and raw foods to support a persons' death in the neighbouring village on the other side of the river. That is how resilient the people are in resolving community problems in Melanesian communities.

The people in the two villages are facing other challenges like climate change, river flooding at Kerea village and drought at Kintunu village. Climate change is affecting the people's daily living in terms of the people producing less food crops to sustaining their food security.

Through, observing and interacting with the people in the two communities I realized that the people want improved communication services. The existing communication services in the

two villages are very poor and unreliable. If the people in both villages want to make calls, they have to climb a mountain or a tree or walk some distance away to a designated place in order to access the reception to make calls. For these situations, the people overwhelmingly demanded better communication services to maintain contact and to get new information and advertisements from outside sources through their mobile phones.

The poor communication service is having an impact on people's situations in the two villages. The people in the two villages could not communicate with business houses, wholesale buyers and other traders to negotiate for a better deal to trade their commodities. Even the volunteer community health worker at Kerea could not maintain contact with the area medical store to get the next supply of medical drugs to treat the people in the village.

The most interesting findings from the research is that 95% of the people in the two communities prefer reliable and accessible communication service. This response reflected the fact that the majority of the people are looking forward to changing and maximising their situations using better communication service.

Overall, what became apparent when analysing the research data findings was that all the research participants expect better communication service? There is consistent evidence in the data that all participants who participated in different research approaches expressed the same sentiments.

The improved communication service will inevitably reconnect a communication channel between the NVS and the volunteers in the rural communities. The poor communication service has separated the stakeholders from maintaining regular contact. The improving of communication services in the volunteer hosting rural communities will enable NVS to

maintain regular contact with the volunteers to deliver much-needed goods and services to the people.

5.2 Relational Process and Ethics

“Community entry and working with people in a new environment requires an on-going negotiation process, establishing trust and require consent to allow individuals an opportunity to understand new experiences. It would be disrespectful if I ignore relational conflicts or harmonies that exist in a community, primarily because of establishing a relationship with that community. It is better to understand it and then negotiate, rather than ignore the conflicting situation” (Wilson, 2008, pp. 25-29).

“As I discussed and have more consultation with the community leaders and the people the situation become friendlier and pave the way for more negotiation to involve the people in the research” (Papoutsaki & Harris, 2008, p. 21). “It was only until I was able to get a sense of community relationships and contentions that it became important that the research project activities and outputs are transparent” (Wilson, 2008, p. 35). It is stated that following protocols and processes are basic principle of conducting research in indigenous communities (Wilson, 2008). “It was paramount that I maintain a good relationship with the leaders and the people of the two communities for the sake and success of the project” (Papoutsaki & Harris, 2008, p. 35).

It is explained that the importance of relationships in the Maori research process and paradigm as influencing it (Jones, Crengler & McCreanor (2006). A critical aspect of the research process has been whakawhanaungatanga, allowing time and space to establish relationships. “The dynamics of whakawhanaungatanga are critical in determining participation in research and negotiating access to communities” (Jones, Crengler &

McCreanor, 2006, pp. 9-10). "This extends to the new relationship (between researchers and researched) beginning with rituals of encounter, informed consent and ability to apply appropriate procedures" (Jones, Crengler & McCreanor, 2006, pp. 15-25).

According to indigenous scholars such as Bishop (1998) and Smith (1999), research in indigenous communities using Western epistemologies fail if its purpose is to improve conditions of indigenous communities. As noted by Mel (2002), relationships are central to indigenous epistemologies, enabling what Jones, Crengler and McCreanor (2006) refer to as a space. "Valuing relationships is not enough for a Melanesian research methodology. Respecting relationships and negotiating them around outweigh monetary rewards, encourages understanding and acceptance" (Vallance, 2007, pp. 10-12; Gegeo & Watson Gegeo, 2001, p. 381). Similar to what, I did by negotiating with the people at Kerea and Kintunu villages for them to participate in the research free without expecting material rewards.

"Furthermore, a Melanesian epistemology is embedded in the relationships that are formed and from which knowledge of the world is acquired" (Gegeo & Watson Gegeo, 2001, pp.381-382). "In Melanesian communities, there was an intricate network of social and family relationships that helped to ensure the survival of the group through interdependence and cooperation" (Papoutsaki & Harris, 2008, p. 25). "Few people go hungry and those who still live in their villages can feed themselves as the people live off the land through subsistence farming. People did not define themselves in terms of their individuality but in terms of communal group affiliation" (Papoutsaki & Rooney, 2006, p. 11). The friendly (*wantok*) system where clans-people look after each other by sharing of foods and supporting each other in

times of needs (Papoutsaki & Rooney, 2006, p. 11). As such people do not see themselves as individuals, but attached to each other through a communal way of living.

“Relationships are hard to measure and quantify, but everyday expressions (or lack of it) and ceremonial gestures embody the relationships we have with one another” (Gegeo & Watson Gegeo, pp. 381-382). Negotiating these relationships for the research project included, firstly with the two volunteers and the community leaders and myself; that paved the way for continued communication and completion of the research project. This relationship enabled me to talk to the people (participants) about uncertainties they may have about money for participation in the research. The on-going daily dialogue, even to say good night or good morning add value to the relationship. “The people refer me as a brother and in my thought and writing, I do not believe I have become less objective; instead, I was given permission to engage with everybody and anybody in the two volunteer hosting rural communities” (Papoutsaki & Rooney, 2006, p. 12).

The negotiation with the people happened every day both in house-hold environment and anywhere in the village (Papoutsaki & Rooney, 2006, p. 12). Following the first meetings in the two villages, people began to understand what we were trying to do. Using this relationship, it was central for negotiating the value of participating and concluding the research successfully (Vallance, 2007). As I dialogued with the community leaders and the participants, everybody appreciated the initiative of the proposed research and asked many questions.

The held values affect relationships as relationships affect values in that sense. It means that the existing indigenous axiology, epistemology and methodology emerges and evolves when indigenous research paradigms are maintained that gives account to these relationships

(Wilson, 2008, p. 13; Gegeo & Watson Gegeo, 2001, p. 381). The relationships in Melanesian situations are described as a community connected to each other in a cohesiveness and relatedness (Papoutsaki & Rooney, 2006, p. 12). My role in two volunteer hosting communities of Kerea and Kintunu as a researcher/student/facilitator/ is still obvious to the communities. I have no family connection in those two villages, but through negotiation and building relationships, I enjoyed my stay and conducted the research.

The relationship built through negotiation before and during the research influenced the people to have a sense of belonging and participate in the research. (Bodorkos & Pataki, 2009). The continued dialogue that I maintain keeps the relationship going for collaborative work. The relationship makes me a genuine stakeholder on a mission to help other stakeholders, is the experience people come to realise during the research.

The relationships affected the actual research in two distinct ways, firstly the fieldwork and how successful that was, depending on how I as the researcher conducted myself. If I acted inappropriately and showed disrespect or belittled of the things the communities valued, I would have been deemed ignorant or rude and jeopardized the fieldwork, as well as any long-term personal and family relationships (Vallance, 2007). Secondly, relationships affected the research by way of representation. Clearly, misrepresenting the communities or objectifying them from my own point of view would make this study congruent with indigenous research paradigms. By textually acknowledging their realities and values, the study broadens the scope and space for learning (Bodorkos & Pataki, 2009).

In the village, the big man or chiefs traditionally preside over the affairs of the clan or village. In contrast to Western sense ownership to genealogy possessions are entirely inherent to immediate families and usually controlled by male elder of the families (Narokobi, 1983).

In traditional village life in the Highlands, of PNG owning dozens of pigs, land, gardens and traditional values signifies the status of a person (Barkhordarian, Burke & Mckinnon, 2005). Village chief or leaders are important people in Melanesian societies, the leaders provide leadership and lead the people by sharing, mediating and maintaining peace in the communities. Some leaders in the communities do not claim or inherit leadership; they earn leadership through sharing, hosting feasts, performing magic practice, having more than one wife and owning other traditional values and wealth's (Barkhordarian, et. al., 2005). "In contrast to Polynesians, Melanesian people in PNG have village chiefs or (*Big man*) in each villages" (Papoutsaki & Rooney, 2006, pp. 13-14).

In Melanesia people depend on each other through sharing and bartering and is commonly practiced and maintained till now. Economical concept is a Western concept introduced so money is not everything the people need to survive. The bartering of gifts and food items among the clans and villagers maintains a cohesive relationships with the receiver, who then has obligations to the giver (Narokobi, 1983). The receiver of bartering items will reciprocate and give back to the giver, when the receiver has accumulated enough material wealth such as pigs, garden foods and other values. Melanesians live a simple lifestyle through subsistence farming and ownership of genealogy possessions and values are tied up for genealogy inheritance (Barkhordarian, et al., 2005).

5.3 Working with Communities: Understanding Needs, Values and Realities

This research project sought to identify how an ethnography and communicative ecology research project was implemented, in Kerea and Kintunu villages in PNG. As the project unfolded, critical observation and dialogue has divulged some undercurrents that are

important in understanding communities and their views and perceptions on the communication problems.

Many developing countries in the Pacific region lack basic infrastructures such as health, education, electricity and communication services (Papoutsaki & Rooney, 2006). In these case communication services coverage is very poor and information flow is limited to urban areas, thus depriving the rural and remote Island people. Print media circulation is also limited and illiteracy and costs in rural areas confine the medium to a privileged few. Internet connection usages are determined by access to technology and costing. Broadcast television reach is subject to technological infrastructures such as communication towers, satellite feed, reception signals and access to television sets and electricity supply (Papoutsaki & Rooney, 2006).

Listening to the people's views and acting on their language to address their needs and problems through collective participatory approach is very useful and will attract more "buy in" (White, 1999). The various communication mediums can be used to send and receive messages, through phone calls, face book, faxes, texting, emails and radios depending on context and availability of communication mediums (Carolyn & David, 2006).

The qualitative research that I conducted involving the impacted rural people at Kerea and Kintunu villages is to collectively find the implications that is causing the communication problems. The research findings, values and realities of the two communities will be documented for future reference and research to improve the communication services. Overall, the free flow of communication services will improve people's situation socially and economically.

The experience discusses an approach to community work beneath the surface, unpacking community values, realities and working with it. These values are not necessarily traditional but show a community submerged in economic activities and transitional lifestyles.

The value of 'community' is surface-value because the community has always been the way Melanesians have experienced a core value – being life translating to a better situation (*gutpela sindaun*) in Melanesian Pidgin for lack of terminology translation (Mantovani, 1984).

The function of community is biological survival, meaning, all the facets that are embodied in the word 'life'. However, life is not only biological existence; it is health, wealth, well-being, good relationships, security, prestige and strength. "The communities have been experienced as the 'only way to such' 'life' and so it comes to share in the 'absoluteness' of 'life'" (Mantovani, 1984, p. 201).

Mantovani offers that "relationships, with ancestors within a community, to other communities, to the total environment, and exchange as pivotal to the embodiment and interpretations of life within communities" (Mantovani, 1984, pp. 202- 203).

Returning to indigenous ontology and epistemology, interpretations of values such as better situation (*gutpela sindaun*) are laden within and without these proximities; it becomes fluid as their world changes around them. Such values are influenced by emerging trends of globalization that is affecting the 'wholeness' of communities and relationships (Mantovani, 1984). This is a trickle-down effect of the development paradigm. Kukari and Ogoba (1999) are critical of such influences of the Western capitalist economy position that PNG aspires to adopt. "The hegemony of modern development has stigmatized Papua New Guinean realities, which in turn is persuading its people to engage in practices that offer short-term benefits but

that have long-term social, political, economic and cultural cost" (Kukari & Ogoba, 1999, p. 55).

The community members who live in the two communities rely on income from their cash crops as observed and experienced in Kerea and Kintunu villages. The community obligations such as rituals, bride-price payments, funerals and other ceremonies and activities also involve the exchange of pigs and cash peaking at thousands of money per event. With an increasing need for money, Melanesian communities like Kerea and Kintunu remain largely a kinship society, "where there is no significant community organization to meet the market economy, limited specialized crafts and development of commercial markets for large returns" (McElhanon & Whiteman, 1984, pp. 106-107). Therefore, pigs, land, arts and crafts and other inherited wealth's are highly regarded as of significant values in Melanesian societies (Narokobi, 1983; McElhanon & Whiteman, 1984).

The transition from traditional to modern, urban lifestyles and economic affairs is influencing the way people are making decisions nowadays. The traditional bartering system is fading away as people want money from exchanging goods with other people. The global experience is true for Kerea and Kintunu as communities are competing and participating in economic activities, for which the need and acquisition of money, a sub-value to life, supersedes the latter, bringing into question its true value.

The better situation or (*gutpela sindaun*) are a value that entailed health and wealth as suggested by Mantovani, the decisions made about the acquisition of money makes that value somewhat superficial. Therefore, monetary rewards and gains should be discussed as secondary to *gutpela sindaun* or a better life.

The communal being of Kerea and Kintunu is physically present; however, there are pockets of strongholds that impact the community as flagged earlier on by (Whiteman, 1984). Smaller more politically oriented and family groups can be found in Kerea and Kintunu villages and contentions arise literally between families because of these affiliations. Whiteman, (1984) illustrates these fragmentations in comparison to “Polynesian hierarchical structures where a paramount chief leads thousands of people” (1984, p. 93). In Melanesian societies, small pockets of allegiances are formed around a big man, someone who might have wealth, prestige and is influential. Melanesian social organizations are characterized by fragmentation with societies splintered into several small political groups. Other aspects of “Melanesian social organization such as the topic of leadership in Melanesian societies as well as kinship and economic organization are rather complex, but of course, it is very important to understand” (Whiteman, 1984, pp.94-95).

In Kerea and Kintunu interpretation of values are both generational and cross generational. There are sub-values to a sense of better life that both facilitates and impedes its acquisition and often become core. Money will remain a point of contention because of its sub/value in improving lifestyles. In terms of project benefits, it must be continually negotiated and value relationships to understand how communities function.

The advantaged of the research project is that the people in both communities have come together and taken ownership with one accord to realize their dreams of accessing improved communication services in their respective communities. Nevertheless, relationships in the communities must be negotiated, maintained and clearly seen for what it can offer and how it may deter continuity. Gegeo & Watson-Gegeo (2001) talked about an indigenous critical praxis where people critically reflect on the contexts in which they live in, then taking the next

step to act on these reflections; the process "flows from and is deeply rooted in indigenous epistemology by engaging in indigenous critical praxis, villagers transform their epistemology and in the process are themselves also transformed" (Gegeo & Watson-Gegeo, 2001, p. 275).

In reflection, of the research study in the two communities' women equally participated with the males and have a voice to speak during the research. Gender is a broad topic area and can be discussed in a number of categories and within circumstance from kinship to labour. The gender discussions here pertain to participation and voice. The research project did not run the risk of following patterns found in journalism studies (in PNG) of gender inequality, where women's voices become silent (PNG Media Council, 2007). My observation of gender disparities in the research project come from two angles, females as equal and core participants and females as part of the impacted communities.

This interactive engagement with the two communities culminated in the creation of data in an on-going process, within a research paradigm challenges traditional methods of social inquiry where researcher observes from a distance (Lunch & Lunch, 2008). Furthermore, the process can give "development agents and other researcher's greater insight into the dynamics of indigenous knowledge, as well as into local aspirations and concepts of well-being" (Lunch & Lunch, 2008, p. 13). I experienced that explorative nature of the emerging approaches in qualitative research, based in the arts of social inquiry also presents an opportunity for communication for social change to take form on the ground. This inevitably shapes communication as all involved are critically reflecting on themselves, and the process in which we conduct the research. However, this thesis in presenting any substantial data from the research findings it has initiated a process that is worth pursuing.

5.4 Conceiving an Implementation Process: Methodologies

The research application in Kerea and Kintunu was done using a combination of methods that formed a basis for constructing the implementation process (Louis, 2007). The research study explored, in great depth an initial cycle found in the spiral. The combination of participatory methods was essential to gaining a fuller understanding of Kerea and Kintunu as the community's values, their socio-economic status, political structure and modernization effects. These initial steps also present data that helps to plan for the future-another cycle in the spiral. Henceforth, the whole research has firmly established an initiation process that can be repeated in the spiral with various interventions that can enrich the learning and planning of such a project.

An indigenous approach was also essential to working with the communities as it unpacked significant information about well-being, relationship and values. Relationship building and dialogue enable the research to commence immediately in the two volunteer hosting rural communities. The communicative ecology, ethnography and community social mapping exercises greatly supplemented the research with specific information on communication and social networking structures as well as helping to establish a sense of the natural settings and geographies of the respective communities (Louis, 2007).

Spending time and listening to stories opens up the research to interpretations of life and lived experiences as told by the community members and elders. As a researcher, it is important to initially understand a cultural group's way of seeing the world and their realities in order to sieve through all these data. Establishing relationships and listening to the people's views and acting on their language to address their problems through collective participatory way is very useful. As using their language may attract more "buy-in" as their problems are

being heard and they will feel a sense of inclusive, belonging and ownership to the project (White, 1999). The communication research involved the communities and data collected will be processed in order to report the research finding to the NVS management deliberation.

5.5 What an Indigenous Approach means in Research

The indigenous research approach in research means applying culturally appropriate protocols and processes in order to meaningfully engage with the everyday realities of the indigenous people (Vallance, 2008). The discourses of applying indigenous research approach add value and reflect on my lived experience as an indigenous researcher. With the availability of few pieces of literatures, as this thesis, are written did not hinder the progress of the research, as I was researching the available literatures in order to use the indigenous research approach and lived experiences in the research. For a student attempting to use such an approach, this will also be a challenge. I compare learning of a research approach to learning how to swim. You have to be in the water, watching, listening and mimicking an instructor, drinking some of the water along the way before you master the skill. The skill usually remains a lifetime, even if you do not swim for years. In an effort to provide some points for an indigenous approach, I will explain some things that became important for my research.

Nothing is set in cement, as you read the literature, you need to reflect on how things have happened in your life, especially if you have an indigenous background and importantly if you have participated and been exposed to life in the community regularly. It is emphasised that indigenous research approach is an encirclement of ontology, epistemology, axiology and methodology, “where individual cultural groups process and create knowledge in everyday interactions” (Papoutsaki & Rooney, 2006, p. 32). Each cultural group have values and realities that underpin their worldview (Papoutsaki & Rooney, 2006, p. 32)

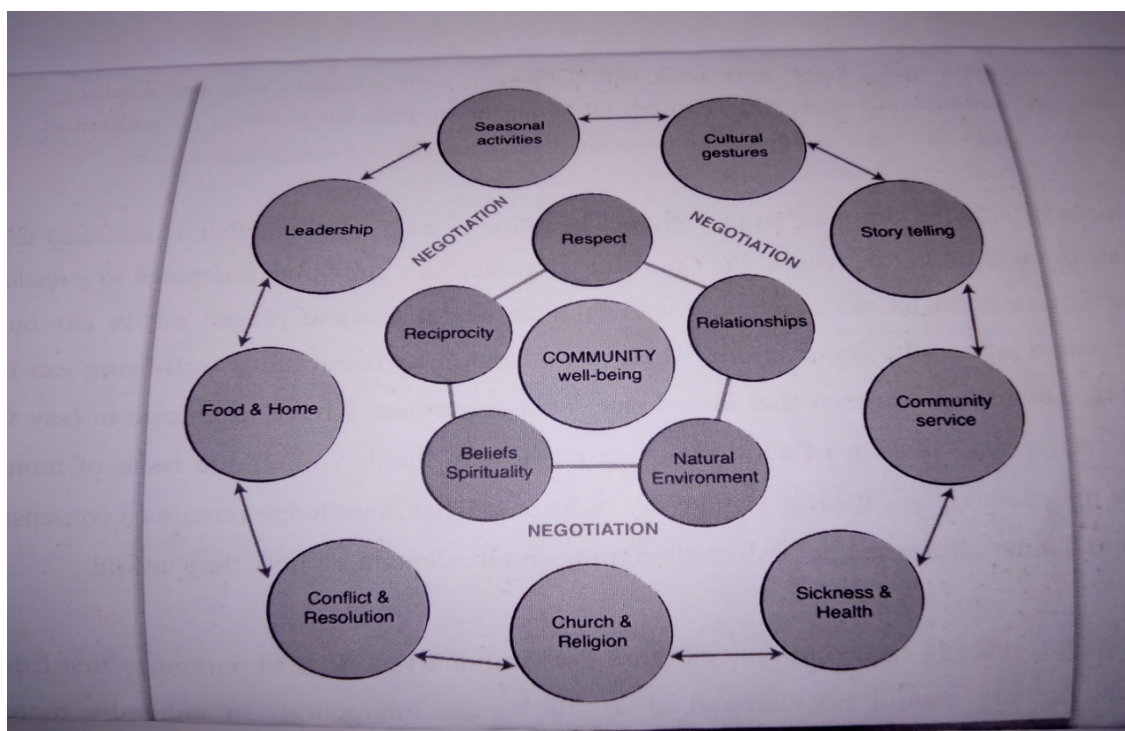


Figure 3: The daily situations and realities of the two communities that binds and blends them together. Source: Internew 2014

Maintaining effective contact with the communities, involving the communities and acting on their voice will enable the people to have the sense of who they are, what they need as human beings and will bring more 'buy-in' (White, 1999).

The diagram above shows the daily situations and realities of the two communities that binds and blends them together. While acting on the people's voices and realities, I negotiate and interact with the community leadership and the communities and conducted the research. Negotiating and understanding people's situation through a bottom-up approach is the key element in maintaining trust and influencing situations.

In the above diagram, the outer circles (variables depending on what you encounter) represent everyday experiences I encountered. The outer circles are connected to each other in a web and not separated in any form reflecting how communities value each other through shared relationships. The indigenous knowledge, values and realities of the communities are

represented in the inner circle of the diagram. The community well-being, experiences, transitions, resolutions and awareness of things both natural and spiritual are depicted in middle circle. As a cultural insider and researcher, it was important that things were negotiated; however, it was important that I knew fully what was happening before I could negotiate anything. During the initial community entry, I was obliged to tell all about the project, but I was in no position to negotiate until I knew what needed to be negotiated and assess how I was going to do it.

The tensions around communication problems and how soon the rural communities will benefit from the research project was a question. Therefore, I maintain not to raise the expectations of the people, but to continue and negotiate with the people to reach a common understanding and consensus. If consensus is not reached, it can then be negotiated and played out in any one variables and re-enters the inner circle, where a realization of community well-being can be interpreted. To further entrench that knowledge, as a researcher, I have engaged in (say for instance) reciprocity, sharing of food and values as a token of appreciation and acknowledgement. If any issue appears, my gestures will itself negotiate my position so that knowledge remains a consensus. There is room and space for negotiation because outer and inner circles of the diagram that depict community situations are not exhaustive.

It is important to take in the community before drawing analysis and conclusion. It is also important to first listen and watch, nothing should be disregarded as all human interactions in culturally rooted communities are 'unreal' to Western eyes and rational, is real for communities. Applying indigenous research approach to contemporary development issues and collaborate in finding ways to improve community needs can enable both researcher and

the communities to become change agents. The collective approach can become a tool for communication for social change.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

To conclude, I will summarise the main results from the research conducted on communication problems in Kerea and Kintunu villages. Initially, I had set to investigate and explore the implications that are creating communication gaps between the National Volunteer Service, its network of skilled volunteers and hosting rural communities in PNG. I wanted to involve the impacted rural communities to identify the real cause of the communication problems through conducting qualitative research to report the findings to the NVS management to deliberate (Bodorkos & Pataki, 2009).

This thesis argues that identified rural communities have been deprived of their basic rights to access essential services including communication services. According to UNDP human rights treaty, every human being has a right to access basic services to meet human needs. The people's rights must not be ignored or hindered by authorities in any form, circumstances and situations, but must focus and protect the people against all forms of discrimination and priorities people's rights to goods and services.

Using Melanesian values to negotiate, built trust and conduct research (methodology as a topic) and what social factors influence the application of the research around communication problems was identified involving the rural communities in the research. The community's reaction and impression towards the research aimed at mobilizing themselves to create narratives to stimulate dialogue around communication issues unfolded during the research. The Kerea and Kintunu research project created a space to explore these questions in great depth, allowing me as a researcher to see challenges and a pathway for the future in both the research approach on communication problems as well as the intervention itself.

The research project enabled a vast amount of empirical data that should be pursued beyond this thesis.

The research highlights the importance of an indigenous research approach as a matter of ethics and accountability through relationships formed as the foundation for any intervention in Melanesian (or indigenous) communities (Gegeo & Watson-Gegeo, 2001). This research has proven that meaningful participation has enabled effective data collection through a collaborative, dialogical process with local communities. The young people with a pool of energy can empower themselves for a positive social change through mobilizing and mentoring.

The community mobilizing can be a catalyst for dialogue and social change, a performance inquiry space through the representation of social experiences. The thesis also contributes to significant discourses of indigenous research approaches, presenting a raw picture of what it really looks like on the ground. Essentially, the thesis is innovating both research and intervention and negotiates itself on a progressive ground.

“The research was grounded in the Melanesian community experiences and realities that consolidate the life-force integration between all participants, including the natural and spiritual world” (Vallance, 2007, p. 12). “The lived experience of Melanesian culture is a requisite of all participants, including the researchers that the research outcomes be developed, published and moved towards action and policy in ways that foster the life of the Melanesian community” (Vallance, 2007, p. 12).

During my research, I also used interviews, focus groups, questionnaires, storytelling and observing methods to collect data. Field notes and dairies served as a log of main activities, detailing of events, describing both physical and social environment, noting what was

present, what was discussed, why, when and where. The field notes, communicative ecology and social mapping were conducted to understand the social interactions and discourses of the communities and the village settings of the geographical area. The social mapping of the communities identifies schools, aid post and clinic, village trade stores, market places, rivers, vegetable gardens, reserved land, surrounding vegetation's and how the dimensions of information ecosystems functioning and circulating within the community. Essentially, an indigenous research approach and the combination of methodologies used have identified the implications that is causing communication problems in the two volunteer hosting communities. That can be negotiated and dialogued further with the stakeholders to find ways in the future to improve the communication problems.

Importantly, the research has informed and shared knowledge around the role of information sharing to empower communities to understand and adapt new changes to support and strengthen information ecosystems. The significant element in the understanding, building, and reinforcement of community resilience was to understand, how to support the health of information ecosystems. Understanding how information flows, and how to ensure that information has an impact at all levels of community is essential for realizing resilience strategies.

Understanding community values, building relationships, listening to the people's views and acting on the people's voice to suggest solutions to their needs and problems through collective participatory way is very useful. Using their language may attract more "buy-in" as their problems are being heard and they will feel a sense of inclusive and ownership to the project (White, 1999).

6.2 Communities take Ownership in the Research Project

In the two volunteer hosting rural communities, Kerea and Kintunu the people cooperated and participated very well in the research study. The literate people signed the consent forms, while the illiterate people give oral consent to participate; no one withdrew their participation from the research. Younger people both male and female were very vocal about the communication problems and expect communication services to be improved and connected to the rural communities sooner so that they can use their mobile phones. The older people from the communities do not mind, as they have no mobile phones and even do not know how to use them.

There are cultural differences from province to province and outsiders need to know cultural protocols prior to entering the community. The matrilineal and patrilineal situation of each tribe or communities should also be known in order to build relationships with the communities. In some community's people from the women's side inherit genealogy possessions and in some community's people from the father's side inherit genealogy possessions. Although males are dominant in decision making in family households, women are still playing a major role in raising, nurturing and keeping the households stable.

Communication for social change and development is achievable when people mobilize, invest resources and put their efforts into it. In narrowing down the thesis, the participatory qualitative research involved the local people in the research, using various research methods and methodologies and collaboratively identified the nature and implications that is hindering and depriving the people to access communication service. This research shows that acknowledging the community's realities and allowing them to talk about it collectively has set the climate for transformation. Most importantly, the research findings will be

documented according to the set rules and will be presented to the National Volunteer Service for consideration and action.

It became clear that a free flow of communication would enable people to acquire new skills and knowledge to change their living. As a development partner, NVS is prioritizing and working to promote social change in the rural areas, but communication problems are hindering the progress in serving the people.

On that note, I conclude here by providing some recommendations because of the findings and discussions of this study. In conducting the research study, these recommendations are critical for, especially an indigenous Melanesian research approach, which were determined by the researcher and the little literature available on this approach. Secondary, this study has opened up opportunities to continue working and dialoguing with the stakeholders and the concerned communities in order to realise the results of the research in the future.

6.3 Recommendations

- Project continuity: These research findings need to be discussed with both NVS and the PNG government.
- Communication needs of rural areas in PNG must then be addressed by appropriate government agencies in conjunction with mobile communication networks.
- Planning for further intervention activities and maintain contact with the volunteer, community leader and the community members is required.
- Appropriate evaluation of intervention through dialogue with community members; initially to set up an evaluation tool and then to engage in the evaluation process.
- The indigenous (Melanesian) research approach in qualitative social inquiry, especially in axiology and methodology, needs to be promoted to guide young indigenous local

researchers, explicitly outlining steps and processes for research. Furthermore, ethical prerequisites for indigenous Melanesian research in the region should collaborate with other indigenous ethical standards.

6.4 Limitations and Future Research

The resources available, such as finance and time, limited the research. This has meant that only two villages were studied and a limited number of people questioned. This means that it would be worthwhile repeating the research methods used in other parts of Papua New Guinea in order to explore how widespread the problems of communication are across the country. Future research on communication would indicate the communication challenges faced by rural communities.

6.5 Final words

My research has demonstrated that the local people urgently need an improved communication network in the rural areas of the country. The functional communication services in the rural areas will act as a catalyst of social change to improve the people's living.

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Appendices

Appendix A: Participant Information and Consent Form

COMMUNITY PARTICIPANT INFORMATION SHEET

TO BE KEPT BY PARTICIPANT

The following translated information is for those willing to participate in the research project. You do not have to part take if you do not like, but if you wish to; I very much appreciate your contribution to the research project.

Title of the Research Project:

Assessing the communication gaps between the National Volunteer Service, its network of skilled volunteers and hosting rural communities.

The research team and project funder:

The research team is made up of two supervisors and me as a researcher. Unitec and National Volunteer Service fund the research project. The research project is to assess the nature and implication of poor communication services in the volunteer hosting rural communities.

Introduction:

In 1990, Parliament establish the National Volunteer Service as the community development entity. Since its inception, National Volunteer Service has being recruiting and placing skilled volunteers in hosting rural communities. Currently, 30 volunteers are serving in the rural communities' throughout the country. The two rural communities that are very challenging to maintain contact are Kerea and Kintunu villages. This research is to recommend solution to the communication problems in order maintain contact with the volunteers and the hosting villages of Kerea and Kintunu.

Please read the participant information carefully. Feel free to ask questions about any information in the document. You may also wish to discuss the research project with a relative, friend or someone else. Once you understand what the research project is about and if you agree to take part in it, you will be asked to sign the Consent Form. By signing the Consent Form, you indicate that you understand the information and that you gave your

consent to participate in the research project. You will be given a copy of the Participant Information and Consent Form to keep as a record.

The research project:

The assessing communication research project will work with you to find out the implication that is causing the communication gaps. Through storytelling and talking, we will share information about what is happening in the community due to unreliable communication services. In addition, the research project also aims to involve the local people to find out what your community knows and think about the communication problem.

What will you do in the research project?

You will be involved in these research methods:

- One-on-one interview session
- Participate in questionnaires
- Participate in focus groups
- Storytelling
- And researcher observation activity

What are possible benefits?

Possible benefits includes better reliable communication service for the impacted communities. The people will maintain contact with other service providers and stakeholders to make informed decisions in order to improve their living. The people will maintain contact with their relatives and friends in other places when the communication services are improved.

Participation is voluntary

Your participation in this research is voluntary. If you do not wish to take part, you do not have to. If you decide to take part and later change your mind, you are free to withdraw from the study at any stage. Before you make your decision, I will be available to answer any questions you may have about the research study. You can ask for any information you want.

Privacy, Confidentiality and Disclosure on Information

Any information found in this project that will identify you will not be made public unless you gave your permission. It will only be made public if you give your consent. If you say yes by signing the Consent Form I will publish your particulars with Unitec, Auckland Institute. In case you do not agree to be identified, your name and any identifying details will be removed from field notes and transcripts before analysis and publication. Original materials will be stored safely and only accessed by the researcher and supervisors of the project.

Contact Details

This research project will be carried out according to the guidelines of the Ethics Committee of Unitec, Institute of Technology. Should you need any further information, have concerns as a participant in the research, or you have a complaint about the way in which the research is conducted, please contact:

Dr Martin Bassett and Dr Geoff Bridgman

Head of Interdisciplinary Studies, Building 55 Unitec, Auckland

Tel: 6498494180

We would like to thank you for your time and interest in taking part in this research study.

Community Consent Form to Participate in the Research Project

“Assessing Communication Gaps”

I.....

(please print your full name)

have been invited to participate in the research project entitled “Assessing Communication Gaps”

I have read the information sheet related to this project and have been informed (verbally) of the following points:

- The Ethics Committee of Unitec, Institute of Technology, has given approval for the protocol conduct of the research project.
- The aim of the research project is to assess the implication of the communication problems in order to suggest solutions.

- My involvement in this project may be terminated if distress occurs.
- I can refuse to take part or withdraw from the project anytime.
- I understand that neither my community nor I will receive any monetary payment for the participation in the research project.
- I understand that by consenting to this research project. I will be identifiable and that no de-identification will take place before, during and after the research.
- Given that I have provided my contact address, I will receive a free copy of the research.
- I declare that I am over the age of 18 years.

Please circle one of the statements whether or not you wish to be identified in the project.

I agree to be identified in the project. I do not want to be identified in the project.

After considering all these points, I accept the invitation to participate in the research.

I am aware that I will be given a copy of the Participant Information Sheet and Consent Form.

Signature:.....Date.....

(of participant)

Witness:.....Signature.....

(Please print name)

(of witness)

NOTE:

The Unitec Institute of Technology Ethics Committee has approved this research project. If you have any complaints or reservations about the ethical conduct of this project, you may contact the Committee;

Dr Martin Bassett and Dr Geoff Bridgman

Head of Te Miro Interdisciplinary Studies Unitec Institute of Technology Auckland.

Tel: 6498494180

Appendix B: Research Questions

1. What are the communication needs of the stakeholders in the rural communities the NVS provides services to?
2. What is the existing communication infrastructure in the rural communities NVS is working with?
3. What hinders access to communication services and information flow in the communities NVS is working with?
4. What is the impact of these communication challenges on the volunteers work during their placement in the communities?
5. What is the impact of the gaps in the communication flow on the people living in the communities hosting NVS volunteers?

