

ROTARIANS AGAINST MALARIA



LONG LASTING INSECTICIDAL NET DISTRIBUTION REPORT

SANDAUN PROVINCE Aitape Lumi, Nuku and Vanimo Green Districts

Carried Out In Conjunction With The Provincial And District Government Health
Services And The Church Health Services Of Sandaun Province

With Support From Against Malaria Foundation and Global Fund

26 October 2017 to 3 February 2018



Table of Contents

Executive Summary	3
Background.....	4
Schedule	6
Methodology.....	6
Results	10
Conclusions.....	12
Acknowledgements	13
Appendix One – History Of LLIN Distribution In PNG	13
Appendix Two – Malaria In Sandaun Compared With Other Provinces	18
Appendix Three - Malaria By Altitude	20
Appendix Four – Other Photographs	21
Appendix Four - Map Of Sandaun Showing Census Points Of 2000 Census	23
Annex One Detailed Distribution Data For Aitape Lumi District	
Annex Two Detailed Distribution Data For Nuku District	
Annex Three Detailed Distribution Data For Vanimo Green District	

Executive Summary

Sandaun is a province of PNG made up mostly of low altitude coastal planes with inland mountains running parallel to the coast in Aitape Lumi, and Vanimo Green. A further high mountain range exists in Telefomin District where altitudes rise to over 3,000 metres (See Appendix Three). Areas above 2,000 metres are considered malaria free but most people in Sandaun live at lower altitudes where malaria is endemic.

A family level survey and distribution of Long Lasting Insecticidal Nets (LLINs) were carried out between 16 September and 28 November 2017 in the three districts of Sandaun province called Aitape Lumi, Nuku and Vanimo Green. Both Nuku and Aitape Lumi are mostly accessible by road whereas large areas in the south of Vanimo Green District can only be accessed by boat. Telefomin district will receive nets in late 2018.

Table One shows the estimated population and actual population found in each district along with the number of LLINs distributed by district. In total, 126,019 LLINs were distributed to a population of 230,459 people. This resulted in distribution of 48.3 nets for every 100 people in the province.

TABLE ONE – Population And Nets Distributed In 2017

District	Census Population 2000	Population Surveyed in 2014	Population Surveyed 2017	House Holds Surveyed 2017	Nets Issued 2017
Aitape Lumi	53,382	80,667	89,287	16,684	44,110
Nuku	46,021	68,061	75,099	15,372	37,802
Vanimo Green	50,751	81,731	91,731	14,816	44,107
Totals	150,154	230,459	256,117	46,872	126,019

A further 83 LLINs were donated to health centres as nets were surplus to requirement and in most cases could not be easily returned to a central location. These nets would be used by pregnant mothers and for hospital beds where needed.

The overall operational cost of the programme was 473,354.12 Kina (Approximately US\$145,647) resulting in a unit cost of about 3.76 Kina or US\$1.16 per net delivered which was about 7% under the anticipated overall budget. There were overspends in car hire, fuel and savings in human resources.

Overall, the distribution went very well in Sandaun except heavy rains in December made some areas in Aitape Nuke district practically inaccessible. This means the Aitape Nuku distribution could not be completed by the end of the year thus the team had to return to this area after the Christmas break.

Feedback from partners and communities suggest they were happy with the methodology used as the process appeared transparent to all concerned. However, as always, there were a few families who complained that they did not receive enough nets but for the most part it is believed that this was a result of families not fully understanding the allocation system used.

The Against Malaria Foundation (AMF) generously donated all nets while the Global Fund (GF) provided the delivery costs of nets at the family level. Without these two donors, the delivery of nets into Sandaun would not have been possible.

The history of LLIN distribution in PNG and Sandaun Province is discussed in Appendix One and the malaria situation and stratification of malaria in Sandaun are discussed in Appendix Two and Appendix Three.



Fig.1 – Training Volunteers In Amanab (Left) And Green River (Right)

Background

Rotarians Against Malaria (RAM) is a nationally based organisation which was formed in 1997 by the Port Moresby Rotary Club in recognition of the tremendous burden that malaria imposes on the people of PNG.

RAM has an organizational mandate to work in malaria control and the distribution of LLINs in Papua New Guinea and has been working for many years with the National Department of Health (NDOH) and other partners including multilateral and bilateral agencies such as UNICEF and WHO (World Health Organisation), NGOs and church groups. (See Appendix One for full history of LLIN Distribution)



Fig.2 Training in Green River (Left) and taking nets to Nuku (Right)

Since 2010, RAM has been coordinating the distribution of nets to all districts and provinces on a three-year recurrent cycle. This effectively means that RAM visits every village in PNG every three years. RAM is funded by the Global Fund since 2019 and since 2017 also from Against Malaria Foundation which supplied PNG with all its nets. The Global Fund resources are now used for LLIN distribution costs and other relevant administration costs.

Generally, LLINs have been distributed to household level throughout the country but when shortage of funds occurred, different strategies of distribution have been used.

PNG can be roughly divided into five epidemiological zones.

- a) Areas which lie above 2000m in altitude will no longer receive LLINs as malaria transmission is not considered possible at these altitudes.
- b) Low lying areas of the country up to 1200m which have stable malaria endemicity and often have poor access to health will continue to have household distributions.
- c) Areas from 1200 to 1600m which are generally considered to be of low transmission potential but may concede occasional epidemic due to poor immunity and changing weather conditions. LLIN distribution will continue in these settings.
- d) Highlands regions between 1600 to 2000m in altitude such as Mount Hagen which have low malaria endemicity and generally easy access to health services. These are low priority areas due to current funding constraints, however, RAM is trying to find additional funds to cover these areas
- e) In urban and peri-urban areas such as Port Moresby which are low lying areas with easy access to health, nets will not be distributed during funding constraints. Nets to these areas will be supplied through the private sector.

As a result of this stratification and when funds had been reduced such as at the end of 2014, areas above 2000m no longer received nets and areas from 1600 to 2000m only received under five campaigns in 2015 and 2016. However, due to the LLIN donation from the Against Malaria Foundation (AMF) in 2017, all areas are now receiving household distribution of nets-except areas above 2000m, and some urban areas such as NCD, Goroka, Mount Hagen and Mendi. However, for the years 2019 and 2020 funding for areas between 1600-2000 metres still remains tentative.

Only a few scattered villages of Sandaun lie above 2000m, therefore in 2017, for practical reasons, all areas in all districts were included for LLIN household distribution at a rate of approximately one nets for every two people.

One of the conditions of the AMF donation is that RAM would strengthen the way in which surveys are carried out. These new innovative processes are described in the Methodology Section. These methodologies now being carried out since the beginning of 2017. The major change to the survey methodology suggested by AMF is that previously a village meeting was called after a survey was carried out where names of family members were read out to ensure that all households had been surveyed. Instead of this process, a summary of every village surveyed is posted for 24 hours in a public place so that villages can ensure that all their family members have been included in the survey. As a further verification process, members of RAM and local health staff team carry out random house surveys of 6% of households in every village to ensure that the survey process has been carried out correctly.



Fig.3 – Surveying Households In Green River

For household LLIN distributions, regardless of where they are carried out must include a survey and a distribution phase though implementation methods may considerably vary depending on specific circumstances. RAM's approach has been to concentrate on program quality thus RAM develop methodologies that ensure that all recipients in an area actually receive nets and that this can be reported accurately.

The other major change to the original PNG programme of 2004 to 2009 carried out by the NDOH is that nets are allocated to families on a needs basis rather than simply the number of people in the family. Data analysis of National Capital District (NCD) data has shown that this gives a ratio of nets needed to be about 47 for every 100 people. In the previous LLINs distribution of Round-3 in 2006 to 2010, nets were allocated at a rate of one net to every 2.5 people. With the programme only receiving 80% of LLIN needs, and most provinces distributing for example two nets to families of three, in practically every province, nets ran out before the end of the distribution. The RAM programme makes all attempts to assure that this distribution anomaly does not happen by collecting all population information at the beginning of the program and then allocate the nets based on family needs. This strategy is practiced to ensure that all families receive nets throughout any given province. The only scenario where survey and net distribution may be done simultaneously- is in very remote locations where it is not practically possible to return a second time. This is particularly the case in remote villages which can only be reached by boat and it is costly and impractical to return to the villages for a second time.

In terms of coordination, RAM officers are allocated to specific LLGs or health centres where they coordinate the programme together with local health staff. In this capacity, RAM officers act as facilitators in terms of technical guidance to district health teams in each LLG as well as acting as financial officers and assuring quality control of activities taking place.

Schedule

This distribution took place in the eighth year in which RAM has been involved in the distribution of nets in collaboration with Provincial Health Authorities in PNG. Survey and distributions were carried out as per the table below. Operation commenced in Vanimo Green and then other teams started in Nuku and Aitape. As Vanimo Green has no road contact with Aitape and Nuku, nets were sent separately by boat to Vanimo and Wewak respectively.

Most villages of all three districts are reachable by road while few require trekking. However, the southern part of Vanimo Green can only be reached by canoe.

TABLE TWO
General Timetable Of Activities In Sandaun

District	Survey		Distribution	
	Start	Finish	Start	Finish
Aitape Lumi	14.11.17	28.01.18	15.11.17	03.02.18
Nuku	07.11.17	27.11.17	21.11.17	10.12.17
Vanimo Green	26.10.17	01.11.17	31.10.17	23.11.17

Methodology

Prior to planning and implementation, a master list of all villages of Sandaun was drawn up using data from the 2000 Census and the last RAM survey of 2014. Villages in the list were organised by LLG and Ward. In this master list, the estimated population for 2017 for each

village is recorded in two ways, first estimated population figures from the 2000 Census and the estimated annual growth rate for Sandaun and then by taking the population surveyed in 2014 and applying the annual growth rate to each village.

In all areas, Health Centres form the hub from which distribution takes place to the respective villages in each health centre's catchment area. Therefore, with the planning data at hand, the project manager of RAM works together with the Provincial Health Office to allocate every village to its nearest health centre (government or Church Based) and outlines how each village is reached from each health centre. From this it is possible to create a budget, estimate how many nets are needed to be sent to each health centre and work out any other logistic considerations such as use of airplanes or boats to deliver nets to some remote areas.

Once all logistical needs are calculated and nets delivered to the province or district, a RAM team will travel to the province. Once there in the province, RAM officers are allocated to work with each health centre which becomes the centre of operations for that area.

With the arrival of RAM officers, each health facility identifies health staff members or non-health volunteers to be involved with the programme. If local health staff are selected then they are referred as District Health Team (DHT) but if a non-health staff is selected then s/he is termed as a Team Leader. Both DHTs and Team Leaders are responsible for the survey and distribution of nets. Each DHT and Team Leader work only in the area in which the health facility is based.

Before any activities take place, RAM officers are expected to work with health staff and other team leaders to make detailed plans (micro-planning) of their activities for training, survey, verification and distribution of nets. This process involves- making maps of the area, deciding how many teams are needed, and then making detailed work plans for each of the team members. This process also involves verifying that no villages have been left out of the census list and that the whole area is covered.

Also prior to field activities in any given LLG or health centre, a social awareness campaign was carried out in all villages informing villagers of the upcoming survey and distribution. This was also used as an opportunity for RAM officers to become familiar with each area. During this process, key malaria messages were also discussed with villagers such as the need to use LLINs every night.

During the social awareness campaign, a daylong training meeting is normally held at each health facility for all DHT members in that area who jointly carry out the micro-planning exercise. These training and micro-planning sessions as well as all other activities associated with the programme are coordinated by RAM project officers together with health counterparts at provincial and district levels. RAM officers also have the responsibility to ensure the LLINs operation kept in line with the original budget.

Survey

The survey was carried out in the following way.

- 1) When arriving at a village and before starting the census process, a meeting was held with village elders explaining the process.
- 2) If village elders have an up to date list of all village occupants, the team would use this list to compile a census.
- 3) Where a village is small, e.g. less than 30 families, team members may carry out the census by themselves.
- 4) Where villages were large, village volunteers were identified with the assistance of the village chiefs, elders, health staff and councillors. One volunteer was chosen for each

group of about 50 families with volunteers chosen by natural divisions in the village e.g. clans where one volunteer would make a list of only one clan. These volunteers were trained to carry out the survey by actually surveying houses with the team leaders supervising and assessing the recording. Once the team leader was confident that the volunteers knew the survey methodology, they were left to continue with the household survey with survey teams returning within an agreed period to verify the work of the survey volunteers, collect survey books and also to pay the survey volunteer, provided the work was carried out correctly. The training of volunteers may occur in groups or individually depending on access to the village and its proximity to other villages.

- 5) For each household surveyed, all family members who normally reside at the household for a minimum of nine months were recorded by Name, Age, Sex and Relationship to head of household. All names and other information was recorded in the survey book with one survey form being used for each household.
- 6) After surveying a household, a white copy of the census form was given to the head of household or most senior person present in the household.
- 7) Where a whole household was absent, information was taken from the neighbours and the white survey form left with them.
- 8) In all cases, after the census/list was finished, all the information about the households and number of household members is entered into a summary sheet. This list is then hung in a public place where all villages can verify that the right number of family members for each household has been recorded and that all families have been included in the survey. After the list has been in a public place for 24 hours, then the volunteer requests for the RAM officer and or DHT to visit the village.
- 9) RAM officers and DHTs must visit three households randomly from each survey book (6%) and verify that the survey has been carried out correctly. Only when this has been done, then the volunteer can be paid.
- 10) If a village was surveyed by more than one volunteer, then volunteers were asked to work together so that lists can be hung together and the village volunteers can be verified at the same time. This process also ensures that households do not appear on more than one list. After this process, both the volunteers and the village elders sign a form to verify that this was done.
- 11) All village volunteers received a standard payment of 20 kina a day. Experience has shown that volunteers can usually only survey about 30 families a day, so for the most part, they would receive up to two days allowance to complete a survey book.
- 12) All volunteers were also given a small training manual. Contained in this training manual are key health education messages about malaria which volunteers are expected to discuss with households. This perhaps is the only project in PNG that is able to reach down to potentially every household in the country.



Fig.4 Distributions In Green River

To aid with the survey, the master plan with names of all census units in all the wards in the district had been printed out and given to all the DHTs and team leaders. This document also provides the projected population per census unit as well as other information which might be useful to the area concerned.

After collecting survey data from each village, the information is immediately compared with the data on the master sheet. Where the surveyed population is very different from the projected population, the project staff make enquiries into the reasons for these discrepancies.

Following the survey, all data was entered into a computer where possible or entered into a master sheet of the area concerned. For each village, nets were allocated to each family on a needs basis and this is also entered into the computer or master sheet. This process ensured that all villages received nets and that there would be no shortfalls.

The needs basis in PNG is based on the assumption that children under the age of six sleep with their parents, after which boys and girls are grouped separately from their parents. Nets are also allocated based on the number of children in the house, their ages, and whether there are other dependents living in the households such as grandparents. A full description of the allocation system can be obtained from RAM officers but suffice to say a family of four could receive between one to four nets depending on the sex and age of family members.

Nets are allocated to each LLG based on assumed populations of each LLG and it was important prior to the distribution to ensure that when allocations had been carried out to families and villages that there were enough nets available to cover each and every family.

Distribution

There was no official launch for the LLINs distribution in Sandaun. However, prior to distribution there was a social awareness phase where the project teams informed communities about the arrival of the distribution teams, especially those accessible by road.

The LLINs were then distributed to teams depending on the needs of each village. The LLINs were then distributed by village or wards depending on whether villages were close together. In this latter case, a central location was identified in the ward and then distribution of nets was carried out. In terms of distribution sites, villages were organised in different ways to make the flow of nets easy and effective. However, the actual organisation depended on each team and the structure of the various groups receiving nets.

All net packaging was opened at distribution site with a district code printed on each net e.g. SN17 for Sandaun 2017. This code is added to identify nets to assist in future monitoring exercises as well as discouraging householders from selling the nets on the open market.

Some examples of the process used to control the crowd includes;

- Arranging the people according to the serial numbers in the survey books e.g. 72001 - 72050 and then calling the names and the serial numbers.
- Call the names of the owners of the households, collect the white copy and give the nets.
- Wait for everyone to come to the distribution site, collect all the white copies and sort the copies with the pink copies. Call the names on the white copies and give the nets.

Some of the following control methods were used.

- Everyone who presented with a white copy was given LLINs at the distribution site with LLINs only given to the owner of the house or a member of the house whose name is written on the back of the survey form.
- Those people who lost the white receipts were left to the end of each distribution, with nets only being issued if the name of the person collecting the nets was found on the back of the pink copies.
- For those families who were absent at the time of distribution, their names were written in a form – MOSQUITO NETS HELD IN TRUST BY VILLAGE CHIEFS FORM and the nets allocated to missing families were given to chiefs or any person entrusted by the community with the forms for these families to collect their LLINs later.
- Householders are now being asked to make a thumb print as proof of delivery of nets to a household. The Global Fund had formally asked that householders should sign for delivery of nets. This was considered problematic as many householders are illiterate and even where householders can write, this process takes a long time in what is often a very chaotic and charged environment where speed is of the essence.

It should also be noted, surveys and distributions took place at more or less the same time in some remote places of Sandaun province. This is particularly true for mountainous villages or small islands which might take several hours or days to reach. In these instances, estimations based on the 2000 Census data and local knowledge used to pre-allocate nets. Teams were then dispatched to these areas with nets. On arrival in these remote places, surveys took place and were immediately followed by a distribution based on the survey results.

Other details

In the case of Sandaun Province, all LLINs were delivered to Lae by ship from Vietnam (via Singapore) in seven containers where they were custom cleared. These containers were temporarily stored in Lae before being transported by sea to Vanimo (two containers) and Wewak (five containers). Vanimo shipment was kept at the Vanimo Hospital while Wewak shipment was at the Provincial Government Office. All containers were unpacked in Vanimo and Wewak as the roads to Nuku and Aitape from Wewak are not suitable for very large trucks.

Results

The programme surveyed a total of 256,117 people in the three districts to which were distributed 126,019 LLINs. This resulted in distribution of 49.2 nets for every 100 people in the province. Table Three shows the distribution by district while Table Four shows the distribution by LLG.

TABLE THREE
Nets Distributed At District Level In Sandaun

District	Census Population 2000	Population Surveyed in 2014	Population Surveyed 2017	House Holds Surveyed 2017	Nets Issued 2017	Growth Rate Against 2014 Survey	Growth Rate Against 2000 Survey	Nets Distributed Per 100 People
Aitape Lumi	53,382	80,667	89,287	16,684	44,110	3.44	3.07	49.4
Nuku	46,021	68,061	75,099	15,372	37,802	3.33	2.92	50.3
Vanimo Green	50,751	81,731	91,731	14,816	44,107	3.92	3.54	48.1
Totals	150,154	230,459	256,117	46,872	126,019	3.58	3.19	49.2

Table Three shows an overall growth rate from 2000 of 3.19 but since 2014 it is 3.58 which is a very high growth rate. Table Four also shows population movement from remoter areas to urban areas such as from West Aitape to East Aitape as access in West Aitape is now very poor. Similarly, from Walsa Rural in Vanimo Green to Vanimo Urban.

TABLE FOUR
Nets Distributed At LLG Level In Sandaun

LLG	District	Population Of Targeted Areas In 2014	Population Surveyed 2017	House Holds Surveyed 2017	Nets Issued 2017	Growth Rate Against 2014 Survey	Nets Distributed Per 100 People
East Aitape Rural	Aitape Lumi	35,131	38,762	6,716	19,322	3.33	49.8
East Wapia Rural	Aitape Lumi	11,945	14,234	2,973	6,986	6.02	49.1
West Aitape Rural	Aitape Lumi	22,638	23,474	4,239	11,470	1.22	48.9
West Wapia Rural	Aitape Lumi	10,953	12,817	2,756	6,332	5.38	49.4
Mwase Rural	Nuku	31,395	34,932	7,613	18,063	3.62	51.7
Palma (Palai) Rural	Nuku	18,454	19,471	3,635	9,797	1.80	50.3
Yangkok Rural	Nuku	18,212	20,696	4,124	9,942	4.35	48.0
Amanab Rural	Vanimo	13,979	15,909	2,715	7,537	4.41	47.4
Bewani\Wutung Onei	Vanimo	22,513	26,279	3,993	12,622	5.29	48.0
Green River Rural	Vanimo	16,449	18,137	2,891	8,899	3.31	49.1
Vanimo Urban	Vanimo	18,624	21,006	3,338	10,106	4.09	48.1
Walsa Rural	Vanimo	10,166	10,400	1,879	4,943	0.76	47.5
Totals		230,459	256,117	46,872	126,019	3.58	49.2

Referring to Table Five, it can be seen that a further 83 LLINs were donated to health centres as nets were surplus to requirement and in most cases could not be easily returned to a central location, particularly from health centres which could only be reached by aeroplane or boat. These nets would be used by pregnant mothers and for hospital beds where needed.

TABLE FIVE
Nets Donated To Health Centres

District	LLG	HC	Donated
Nuku	Palma Rural	Wasisi HC	83
Final			83

TABLE SIX
Cost Of Programme In Sandaun (All in Kina)

Cost Category	Budget	Actual	Variances	% Variance
Human Resources	199,391.00	178,662.50	20,728.50	89.6
Fuel Cost	39,910.00	45,579.70	-5,669.70	-14.2
Car Hire Cost	189,000.00	214,382.60	-25,382.60	-13.4
Boat Hire Cost	47,700.00	12,190.00	35,510.00	25.6
Stationeries/Supplies	6,000.00	5,988.50	11.50	99.8
5% Contingency	27,505.00	16,550.82	10,954.18	60.2
Total	509,506.00	473,354.12	36,151.89	92.9

Referring to Table Six, it can be seen that the overall operational cost of the programme was 473,354.12 Kina (Approximately US\$145,647) resulting in a cost of about 3.76 Kina or US\$1.16 per net delivered which was about 7% under the anticipated overall budget. There were overspends in car hire, fuel but savings made in human resources. It should be noted that this cost of expenditure is less than that of 2011 – as many areas, particularly in Vanimo Green, now being accessible by vehicle whereas in 2011 they were only accessible by air which was a very expensive option.

The project also looked at radio or cell phone coverage in the different parts of Sandaun. Referring to Table Seven, the data suggests that in Sandaun, there is generally a reasonable coverage by Digicel except in Vanimo Green but radio coverage is very poor in both Nuku and Aitape Lumi Districts

TABLE SEVEN
Cell and Radio Coverage In Sandaun

District	House Holds Surveyed	Villages	Digicel	Bmobile	Houses with Radios	Villages with Radio Network
Aitape Lumi	16,684	231	169	7	1,473	81
Nuku	15,372	176	175	0	263	42
Vanimo Green	14,816	287	97	6	2,061	220
Total	46,872	694	441	13	3,797	343



Fig.5 – Transportation Difficulties In Amanab

Conclusions

Overall, it can be said that the project was a success both in terms of results and collaborative work done by staff from RAM ,provincial and district health authorities,, and Catholic and Christian Bible Church Health Services i.e. those who have a presence in the province. Through this collaboration, the data suggests that all villages and practically all families in those villages received nets.

The major achievement of the programme was also demonstrating that the new verification process introduced by RAM was practical and was generally accepted by both health staff, communities and volunteers as the survey system is now more transparent. Due to this transparency, RAM officers generally received far less complaints during this distribution cycle than previous distribution cycles.

As with other provinces in the country where RAM has operated in over the last seven years, the methodologies used this time appeared practical and were openly welcomed by both villagers and implementers, particularly the practice of hanging up the list of names in the

middle of the village following a survey: this allowed communities to feel that they were part of a transparent process. This is not to say that perhaps some extra people managed to slip into the books, but in general, it was felt that the system was fair and included practically everyone concerned. The use of the master lists also ensured that all villages were reached and accounted for.

The review of the data prior to the distribution was also important. This ensured that all villages and families received the correct numbers of nets. The 2000 Census Lists were very important to ensure that survey teams reached all villages: without the complete list of villages, it would be very difficult to make a detailed report.

The greatest complaint still received by communities was the number of nets they received. Even though the team explain the logic of how the allocation of nets is calculated, some families were expecting one net per person, others expected it to be based on a fixed allocation based on the number of people in the family, and yet others thought they would be given nets based on the number of nets they stated they already had. This highlights that a better system of explaining the allocation system needs to be developed. In general, unlike some previous districts covered by RAM and DHTs of Sandaun assisted in the allocation of the nets which meant they were in a better position to explain the distribution system on the ground. Nevertheless, despite all the difficulties involved, it would appear that the vast majority of community members accepted the outcome and there were no real problems or complaints encountered.



Fig.10 – Distributions in Alexisshafen

Acknowledgements

On behalf of the Rotarians Against Malaria household distribution team who worked in Vanimo Green, Aitape Lumi and Nuku, we would like to sincerely acknowledge and thank the West Sepik Provincial Health Authority and all District Health Staff of the three districts for the excellent help and cooperation during the LLIN distribution programme.

In particular, we would like to thank, at provincial level, Mr Alphonse Yalim (Chief Executive Officer), Dr Trevor Kalebi (Provincial Public Health Director), Mr Benjamin Yinil (Deputy Director Public Health), Mr Casper Amin (Provincial Disease Control Officer), Ms Rose Mauyet (Provincial Malaria Supervisors) and Mr Enock Waipeli (PSI) for working closely with our RAM team in providing the direction and assistance whilst in the province. RAM acknowledges the contribution of East Sepik provincial health authority for their support as they kept LLIN containers in their hospital premise prior to distribution to remote Sandaun locations.

For the district staff, we would like to thank all those who tirelessly took part in the programme, particularly, RAM would like to acknowledge and mention the following people who were instrumental in the planning and implementation of the programme namely:

Vanimo Green District

Name	Occupation	Institution
Symphoran Sumun	District Health Manager	West Sepik Provincial Health
Sr Miriam Ake	Officer In Charge	Amanab Health Centre
Nr Susan Esis	Officer In Charge/CHW	Utai Health Centre
Mr Max Yawi & Mr Oscar	Officer In Charge	Dabu Health Centre
Mr Ian Binauwa	Nursing Officer	Green River, Dio River and Stone Pass Health Centres
Mr Rodney	Health Extension Officer	Green River, Dio River and Stone Pass Health Centres
Sr Maggie Numbrea	Officer In Charge	Imonda Health Centre
Mr Simon Bantor	Officer In Charge	Wasengla Health Centre
Mr James	Officer In Charge/CHW	Fas 2 Aid Post

Aitape Lumi District

Name	Occupation	Institution
Ms Linda Ambrua	District Health Manager	West Sepik Provincial Health
Mr Jeremiah Tilau	District Health Inspector	West Sepik Provincial Health
Mr Timothy Amandruk	Aid Post Supervisor	Raihu Health Centre
Mr Vincent Nivani	Nursing Officer	Pes Health Centre

Nuku District

Name	Occupation	Institution
Mr Cornillus Aris	District Health Manager	West Sepik Provincial Health
Mrs Elisabeth	Officer In charge/ Health Extension Officer	Nuku Health Centre

RAM would like to acknowledge the support received from service providers like Puma Energy for supplying fuel for the operation, Hertz rent a car, Fly Hire cars and Riverest Hire cars for providing transport and sincere appreciation to the church run facilities under, Catholic and Christian Bible Church Health Services for allowing their staff to work with the RAM team.

Last but not the least, RAM would also like to extend our acknowledgement and appreciation to all the hard-working Community Based Distributors (CBD) for assisting in conducting the household surveys with the other local volunteers. CBDs have played a very important role in ensuring the distribution progressed well without any interferences from the general public.

RAM thanks all relevant stakeholders and CBDs for their hard work, support and cooperation during the Bed net Household distribution programme.

Appendix One – History Of LLIN Distribution In PNG

The use of Insecticide Treated Nets (ITNs) started in PNG in 1985 when the PNG Institute of Medical Research (IMR) conducted one of the first trials demonstrating the health impact of treating mosquito nets with insecticide. The study, done near Sandaun, showed a reduction of *P.falciparum* incidence and prevalence in children below five years of age sleeping under permethrin-treated nets. The protective effect of insecticide-treated nets (ITNs) was also confirmed in many other trials around the world. As a consequence of such findings, the national malaria control program in PNG started emphasizing the use of ITNs in 1989. However, no regular or large-scale distribution of ITNs was carried out at this time.

In the following years, coverage with mosquito nets and other control interventions remained patchy and low in many parts of PNG. It was during this period that Rotarians Against Malaria (RAM) was created from the Port Moresby Rotary Club in 1997. Using a donation of 150,000 treated nets given to them from the National Department of Health (originally from AusAid), RAM successfully ran a revolving fund of nets in which nets were sold at a price which allowed the proceeds to buy more nets. RAM did this successfully for many years distributing about 45,000 treated nets a year from 2000 to 2004.

Prior to 2004, most treated nets had to be re-treated every six months or a year which requires a lot of work and organisation. In early 2004 everything changed with the introduction of Long Lasting Insecticidal Nets (LLINs) which would last for 20 heavy duty washes and effectively no longer required to be treated repeatedly. This change in nets also coincided with the introduction of the Global Fund into PNG known as the Global Fund Round 3.

From 2005 to 2009 the malaria programme in PNG received and delivered about 2.3 million nets throughout the country at a rate of one net for every 2.5 people. The delivery of nets to village level was under the provincial health authorities and reached most parts of the country with Rotarians Against Malaria (RAM) being responsible in delivering the containers of nets to the provinces from Port Moresby and Lae where the nets arrived from overseas.

While the programme was very successful in some areas it was not so successful in others. Problems included slow release of funds from central to provincial level, some provinces not following technical guidelines given resulting in some areas not being covered, and technical and financial reporting leaving a lot to be desired in many of the provinces. When further funds became available in what is known as the Global Fund Round Eight, it was decided that Rotarians Against Malaria (RAM) would take over the coordination of the LLIN programme.

This change has resulted in RAM being responsible for the overall coordination of the LLIN distribution of LLINs in the country particularly in the areas of quantification, procurement, reporting and delivery to provincial and district level. However, the actual delivery of nets to village level is a collaboration between RAM, provincial health authorities and district health and health centre staff.

Fig.1 shows the distribution of nets to districts and provinces from 2006 to 2009 while Fig.2 shows the distribution of nets from 2010 to 2014 and Fig.3 shows the distribution from 2015 to 2017 which includes under five distributions in 2016 and 2017. Under Five distributions had been carried out in areas above 1600m and in Port Moresby and Lae City due to lack of funds. This situation changed when support from Against Malaria Foundation was received.

Up until June 2017, a total of 8,223, 853 had been distributed under the coordination of RAM. Therefore, with the 2.5 million nets distributed from 2006 to 2009, this means that about 10.5 million nets have been delivered to household level in PNG since 2006. This is more than one net per every person in PNG. RAM has also distributed about another 1.2 million nets to health centres for distribution to pregnant women and for prisons and boarding schools.

It should also be noted that alongside developments related to treated mosquito nets, the first cases of chloroquine-resistant malaria were reported in 1976 (20). This progressed rapidly to widespread resistance of *P.falciparum*, and to a slightly lesser extent *P.vivax*, to chloroquine, amodiaquine and sulphadoxine-pyrimethamine (SP). In studies conducted between 2003 and 2005, even combination regimens of these drugs faced up to 29% resistance of *P. falciparum*². This situation together with Global Fund Round 8 also saw the introduction of artemeter lumfantrine branded as Malawan, IPT (Intermittent Preventative Treatment) for antenatal women.

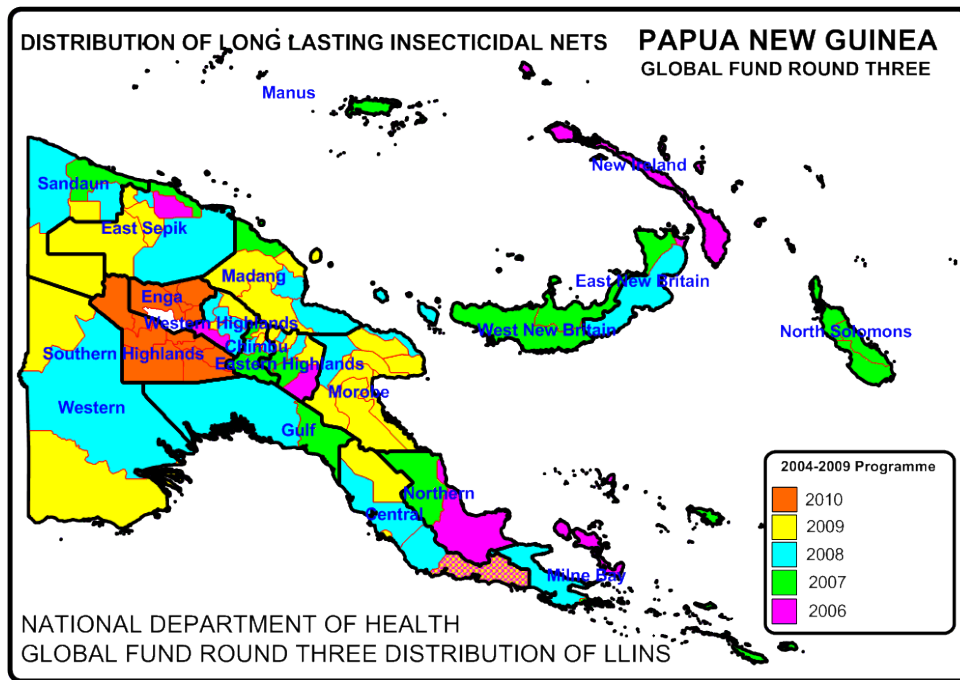


Fig. 1 Distribution Of Nets Under National Department Of Health From 2006 To 2010

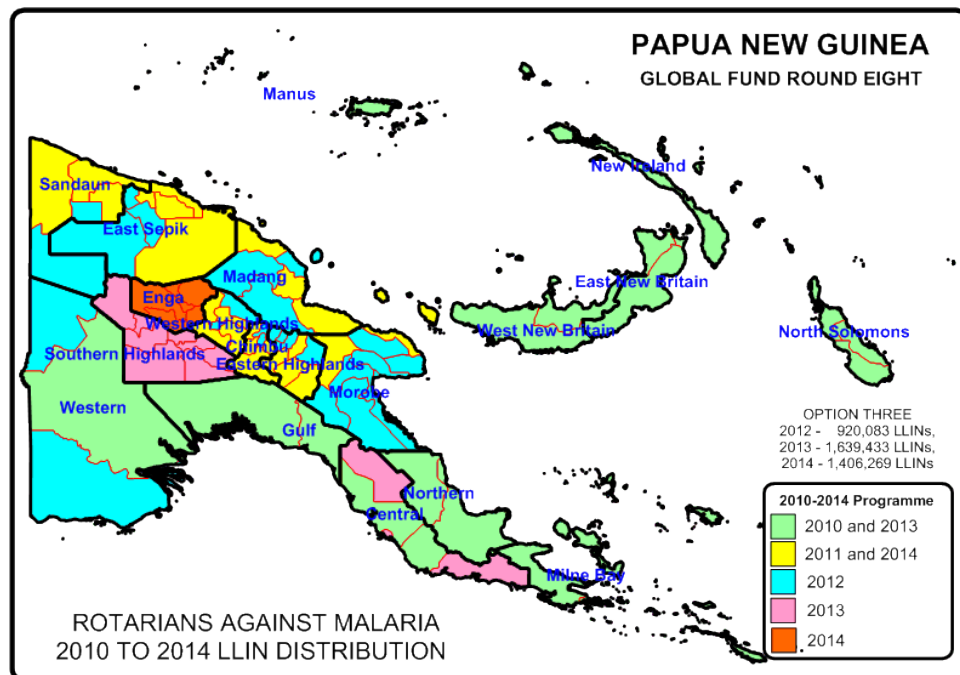


Fig.2 Distribution of LLIN Programme 2010 to 2014

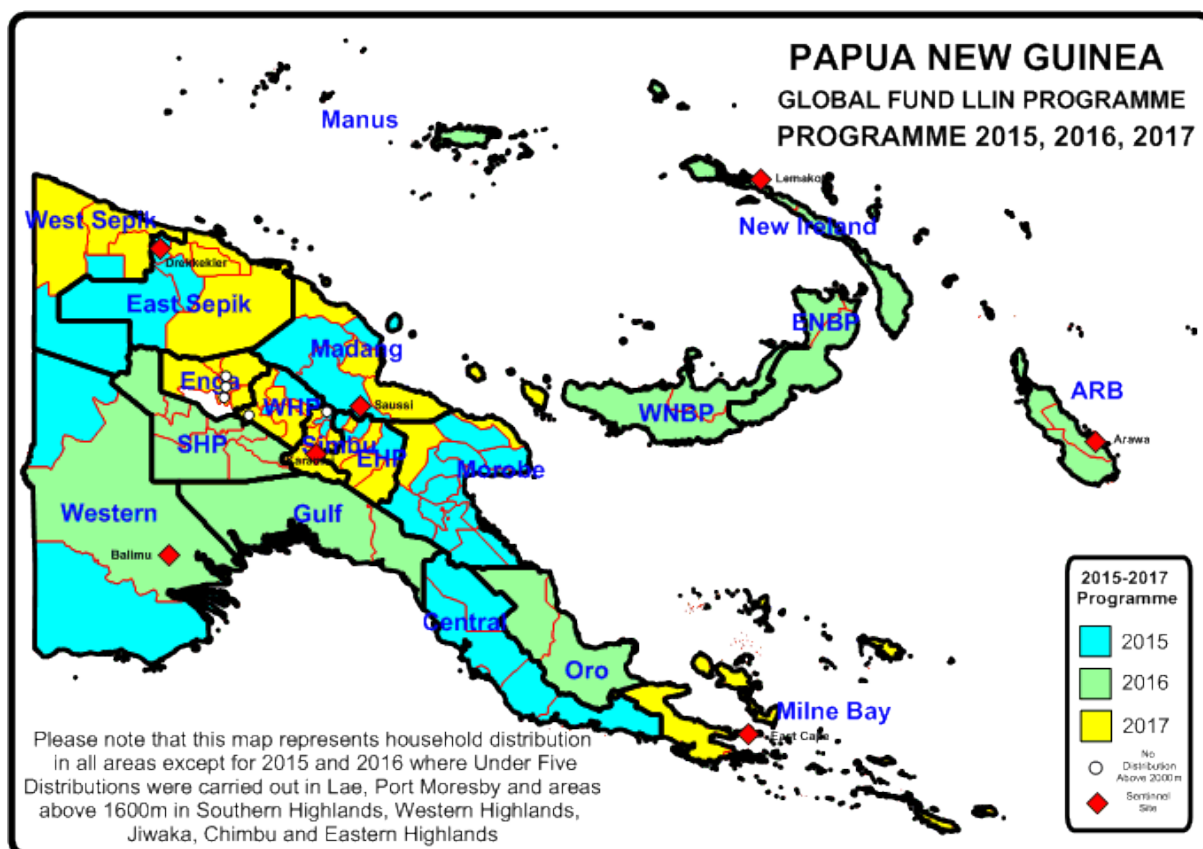


Fig.3 LLIN Distribution Programme 2015 to 2017

TABLE ONE - LLINs Delivered In PNG Under Coordination Of RAM From 2010

Period	Dates	Districts	Provinces	Nets Delivered
Phase One (2010-2011)	Nov 09 - Oct 11	50 Districts	18 Provinces	1,890,448
Year 3 (2012)	Nov 11 - Sep 12	27 Districts	10 Provinces	832,671
Year 4 (2013)	Oct 12 - Sep 13	28 Districts	12 Provinces	1,210,391
Year 5 (2014)	Oct 13 - Sep 14	23 Districts	11 Provinces	1,374,791
Year 5 (2014) No Cost Extension	Oct 14 - Dec 14	Okapa, Lufa, Madang, Angoram, Maprik, Yangoru Saussi, Wewak, Aitape Lumi, Nuku and Vanimo Green	EHP, Madang, East Sepik and Sandaun	454,806
Year 6 (2015)		29 Districts	11 Provinces	932,822
Year 7 (2016)		27 Districts	13 Provinces	805,597
Year 8 (2017)	Jan - Mar 2017	Kokopo, Rabaul, Gazelle, Kimbe, Alotau, Samarai Nurua, Esa'ala, Kiriwina Goodenough	East New Britain, West New Britain, Milne Bay	335,330
	Apr - Jun 2017	Kompiani, Wabag, Wapenamanda, Lagaip Porgera, Tambul Nebliya, Mul Bayer, Dei, Anglimp South Waghi and North Waghi	Enga, Western Highlands and Jiwaka	396,997
	Jul - Sep 2017	Chuave, Kerowagi, Karumui, Goroka, Okapa, Lufa, Henganofi and Obura Wonenara	Chimbu and Eastern Highlands	298,983
	Oct - Dec 2017	Markam, Tiwae Siassi, Madang, Rai Coast, Bogia, Maprik, Yangoru Saussi, Vanimo Green, Nuku	Morobe, Madang, East Sepik and Sandaun	453,814
New Funding Model				3,223,543
Round Eight				5,763,107
Overall Total Phase One and Phase Two And NFM				8,986,650

Appendix Two – Malaria In Sandaun Compared With Other Provinces

- Fig.1 shows the decrease of malaria from 2007 to 2015 in all provinces, Fig. 2 shows the actual malaria incidence in Sandaun compared with other provinces and Fig.3 shows annual malaria trends from 2012 to 2016. In Sandaun, it can be seen from Fig.1 that malaria decreased from 2007 to 2015 by only 35% which is one of the lowest reductions in the country alongside Milne Bay and West New Britain. This is also reflected in Fig.2 which shows that the incidence of malaria in Sandaun is 243 per 1000 people which is the highest recorded incidence in the country. Fig. 3 shows that the trend of incidence of malaria in Sandaun since 2012 as compared with other provinces while Fig.4 shows the malaria incidence reported since 2000 against LLIN distributions. The impact against malaria is only clear in Sandaun following the 2011 LLIN distribution. Other than this, there have been no clear reductions of malaria in Sandaun Province. It is not clear why this is the case but may be related to chronic drugs shortages which have been a feature of Sandaun since 2013

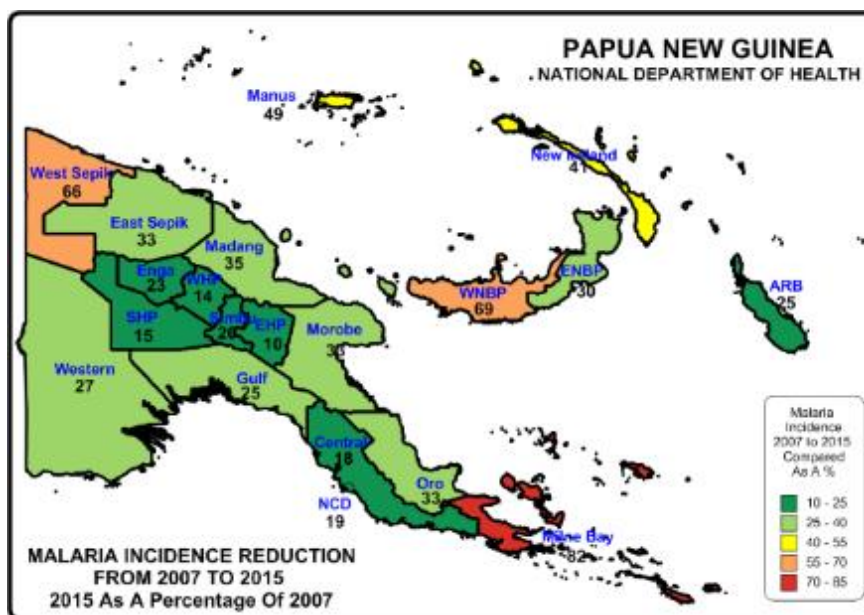


Fig.1 – Relative Reduction Of Malaria In Provinces Of PNG

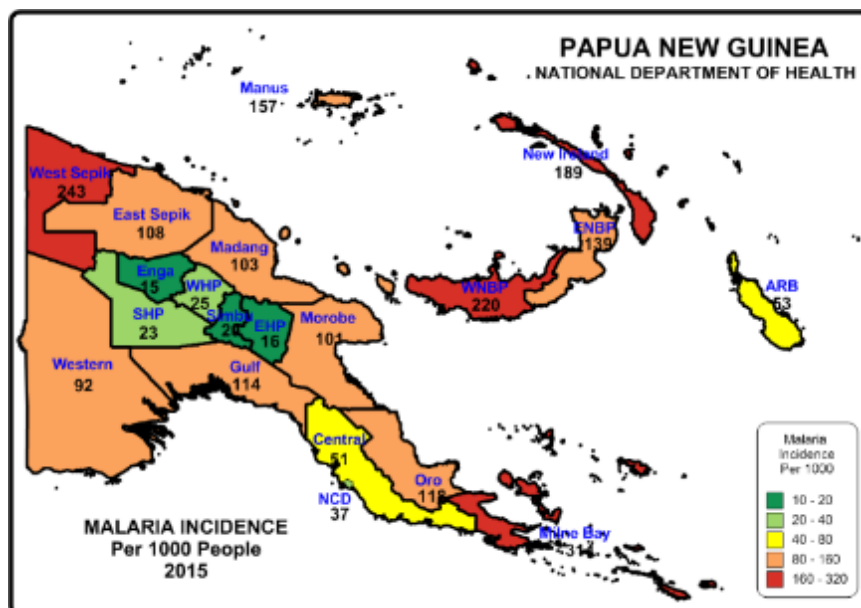


Fig.2 – Reported Malaria Incidence In 2015

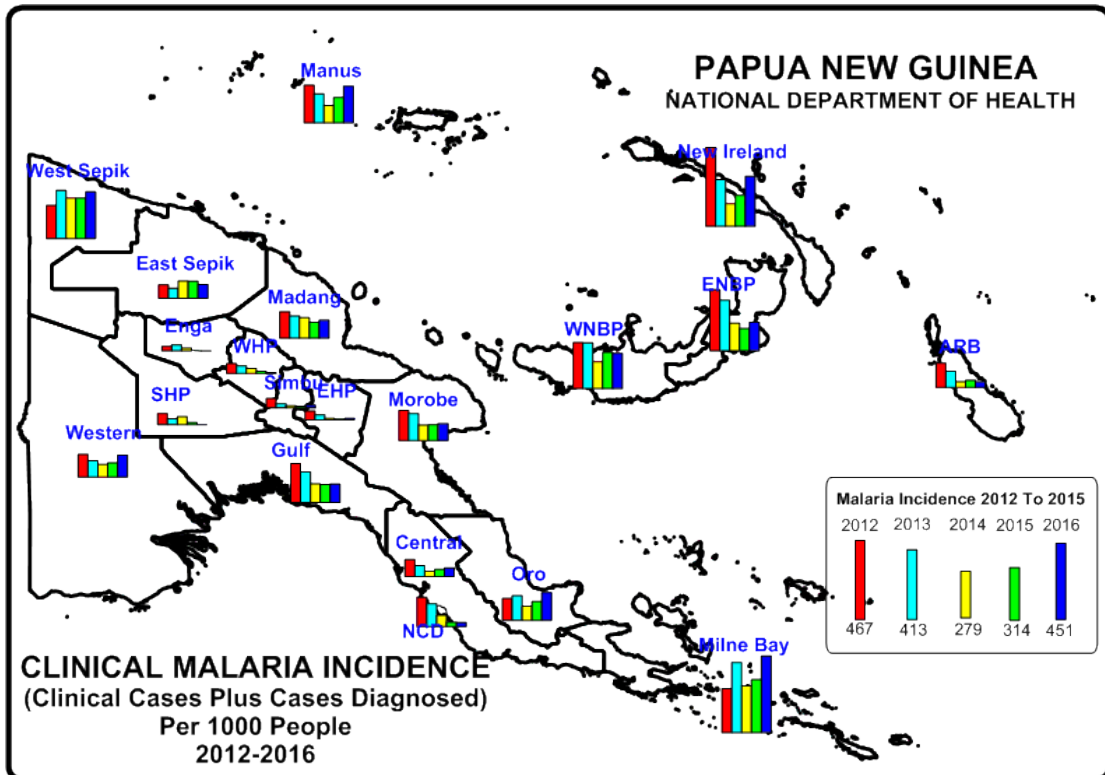


Fig. 3 - Reported Malaria Incidence In PNG From 2012 To 2016

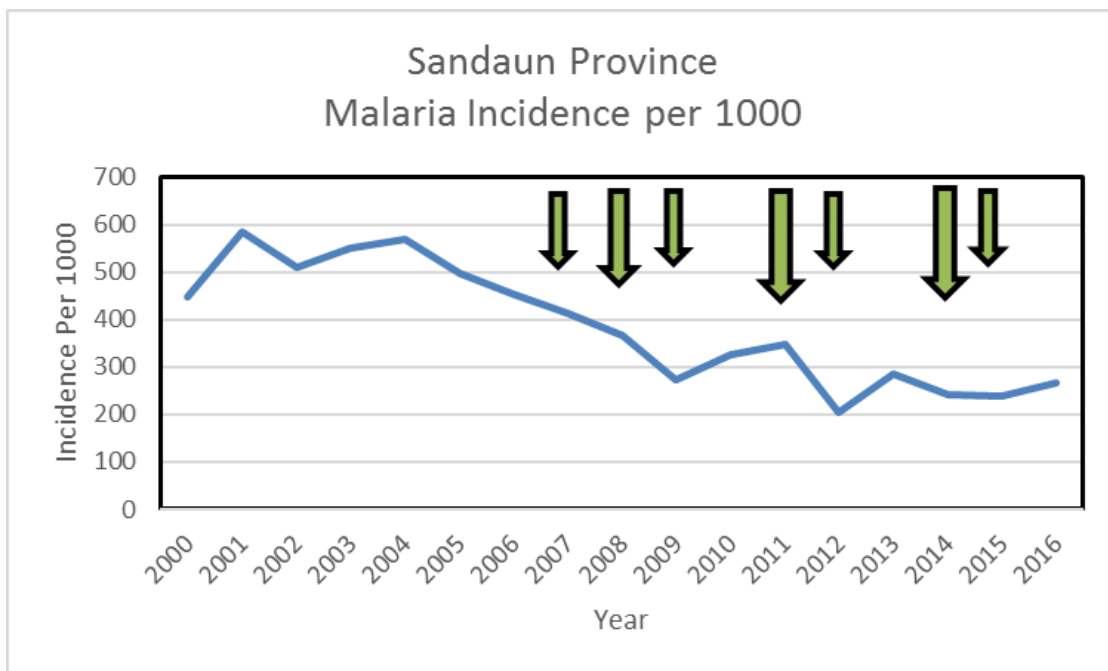


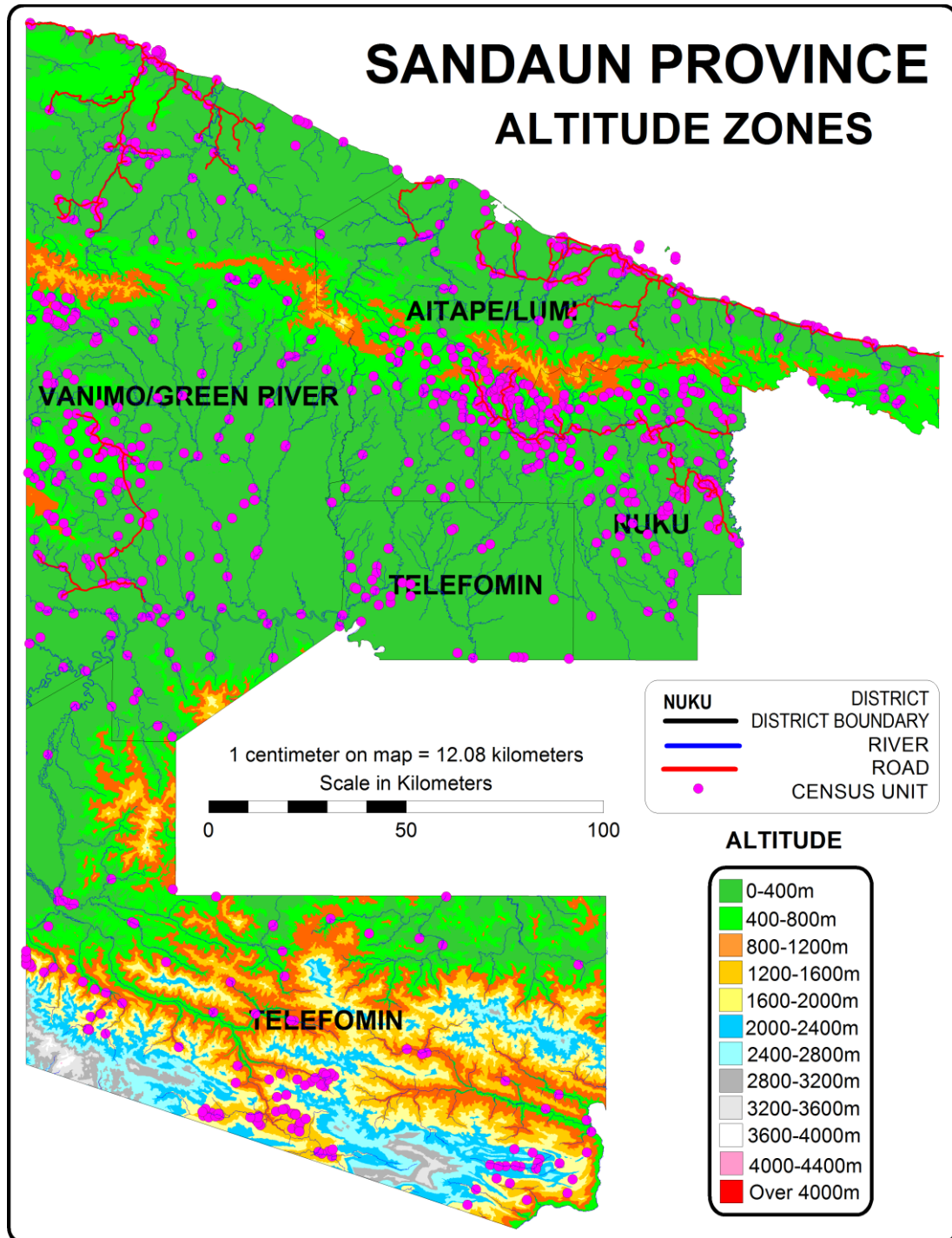
Fig. 4 – Malaria Incidence Versus Distribution Of Nets

(Green Arrows represent years of Household Distribution – Small Arrows show distributions in Aitape Lumi (2007), Vanimo Green and Nuku (2008), Telefomin (2009), Vanimo Green, Nuku and Aitape (2011 and 2014) and Telefomin (2012 and 2015).

Appendix Three - Malaria By Altitude

From Fig. 1 and data bases of village populations, it can also be calculated that about 90% of the population of Sandaun live below 1200m altitude where malaria can be considered highly endemic and stable. A further 5% in the zone between 1200-1600m which is considered malaria epidemic in nature with a further 3% living in the zone 1600-2000 metres where it is generally considered only *P. vivax* lives. The remaining 2.0% live in areas above 2000m where malaria transmission is not considered to exist. People living above 2,000 m are found in Telefomin District which was not covered by this particularly distribution.

Fig. 1 Altitude Zone In Sandaun Province



Appendix Four – Other Photographs



Trekking In Amanab



Road and Boat Travel In Green River



Vehicles Getting Stuck In Green River

OTHER PICTURES



Dinghy delivering nets in Saidor (Left) and Happy Customer In Alexisshafen (Right)

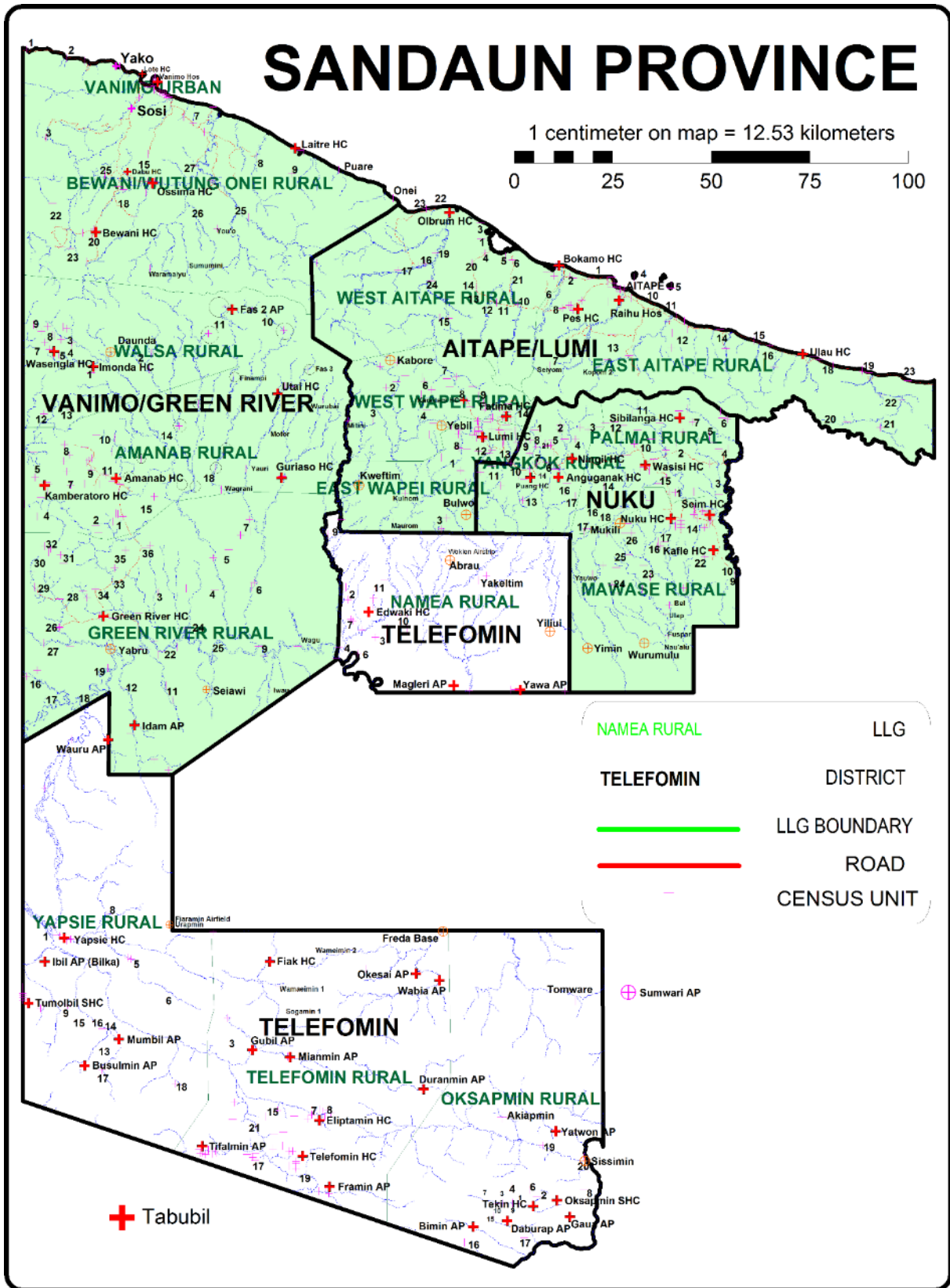


Allocating Nets In Green River (Left) and Distribution In Pes In Aitape (Right)



Distribution In Green River

Appendix Five - Map Of Sandaun Showing Census Points Of 2000 Census



ANNEX ONE

SANDAUN PROVINCE
AITAPE LUMI DISTRICT POPULATION 2017
LLIN DISTRIBUTION SUMMARY SHEET

LLG	WARD	VILLAGE	Estimated 2017 Data Based On 2000 Census	Estimated 2017 Data Based On 2014 Data	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Villages	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
AITAPE \ LUMI			87,891	87,891		89,287	16,684	44,110		231	169	7	0	1,473	81	
EAST AITAPE RURAL			37,201	38,277		38,762	6,716	19,322		86	61	6	0	821	35	
1	POLTULUL		1,788	1,662		1,830	371	918		3	3	0	0	119		
		Yakoi	855	786	Raihu Hos	766	146	384	30.01.18	1	1	0	0	119	BC VANIM	Road
		Poltulul	647	655	Raihu Hos	709	141	345	30.01.18	1	1	0	0	0	BC VANIM	Road
		Tepir	286	221	Raihu Hos	355	84	189	30.01.18	1	1	0	0	0	BC VANIM	Road
2	TALES- LAMBU		1,930	2,010		2,067	384	1,004		2	2	0	0	24		
		Lambu	915	1,048	Raihu Hos	1,047	173	507	03.02.18	1	1	0	0	0		Road
		Tales	1,014	962	Raihu Hos	1,020	211	497	03.02.18	1	1	0	0	24		Road
3	TUMELEO ISLAND		1,306	1,322		1,417	249	706		2	2	1	0	11		
		Tumeleo Is	802	819	Raihu Hos	914	154	451	06.12.17	1	1	0	0	0		Boat
		Tarau Point	504	502	Raihu Hos	503	95	255	06.12.17	1	1	1	0	11		Boat/Road
4	ALI ISLAND		1,133	910		978	166	487		2	0	0	0	10		
		Ali Is	1,027	910	Raihu Hos	978	166	487	06.12.17	1	0	0	0	10		Boat
		Ali Beach	105	0	Raihu Hos					1						Included under Ali Is
5	SELEO ISLAND		464	576		616	123	305		3	0	0	0	0		
		Angel Is	198	290	Raihu Hos					1						Included under Seleo Is
		Seleo Is	221	287	Raihu Hos	616	123	305	06.12.17	1	0	0	0	0		Boat
		Seleo/Negier	46	0	Raihu Hos					1						Included under Seleo Is
6	PORO SETTLEMENT		1,949	1,872		1,680	239	824		1	1	0	0	0		
		Poro Sett	1,949	1,872	Raihu Hos	1,680	239	824	01.02.18	1	1	0	0	0	BC VANIM	Road
7	LUPAI		856	703		643	131	328		4	3	0	0	0		
		Karait	221	331	Raihu Hos	300	50	148	31.01.18	1	1	0	0	0	BC VANIM	Road
		Lupai	257	372	Raihu Hos	217	50	114	31.01.18	1	1	0	0	0	BC VANIM	Road
		Seiyom	43	0	Raihu Hos					1					NBC VANIM	Abandoned
		Damansara	336	0	Raihu Hos	126	31	66	31.01.18	1	1	0	0	0	BC VANIM	Road
8	WAUNINGI		1,396	1,501		1,381	245	670		3	3	0	0	0		
		Siaute	612	537	Raihu Hos	602	97	302	31.01.18	1	1	0	0	0	BC VANIM	Road
		Wauningi	282	370	Raihu Hos	280	58	129	31.01.18	1	1	0	0	0	BC VANIM	Road
		Wom	502	594	Raihu Hos	499	90	239	31.01.18	1	1	0	0	0	BC VANIM	Road
9	PES		1,783	1,767		1,677	297	746		5	4	0	0	0		
		Aisarap	344	398	Pes HC	614	103	221	01.02.18	1	1	0	0	0	BC VANIM	Road
		Marok	471	528	Pes HC	484	94	236	01.02.18	1	1	0	0	0	BC VANIM	Road
		Pes	229	254	Pes HC	266	50	133	01.02.18	1	1	0	0	0	BC VANIM	Road
		Aiserokul	430	351	Pes HC	313	50	156	01.02.18	1	1	0	0	0	BC VANIM	Road
		Pes Cath.Miss	310	236	Pes HC					1						Included under Pes
10	PROU \ VOKOU		1,311	1,533		1,552	250	695		3	3	0	0	0		
		Prou	354	704	Raihu Hos	757	100	307	05.12.17	1	1	0	0	0	BC Sandau	Road
		Vokou	822	829	Raihu Hos	564	100	271	05.12.17	1	1	0	0	0		Road
		Aitape H/Sch	135	0	Raihu Hos	231	50	117	05.12.17	1	1	0	0	0		Road
11	LEMIENG		1,454	1,414		1,516	234	736		1	1	0	0	16		
		Lemieng	1,454	1,414	Raihu Hos	1,516	234	736	05.12.17	1	1	0	0	16		Road
12	CHINAPELI		601	583		540	113	265		4	4	0	0	0		
		Chinapeli	235	387	Raihu Hos	243	50	125	30.01.18	1	1	0	0	0		Road
		Morai	114	0	Raihu Hos	70	11	29	30.01.18	1	1	0	0	0		Road
		Rabago	125	196	Raihu Hos	99	24	48	30.01.18	1	1	0	0	0		Road
		Tepe	127	0	Raihu Hos	128	28	63	30.01.18	1	1	0	0	0		Road
13	KIRIEL- KOPOM		1,370	1,688		1,555	240	768		4	4	0	0	13		
		Kopom 1	198	473	Raihu Hos	227	48	119	03.02.18	1	1	0	0	13		Road
		Kara	323	369	Raihu Hos	351	64	177	30.01.18	1	1	0	0	0		Road
		Paiawa	716	521	Raihu Hos	734	72	340	30.01.18	1	1	0	0	0		Road
		Kopom 2	133	325	Raihu Hos	243	56	132	04.02.18	1	1	0	0	0		Road
14	PAUP		1,982	2,051		2,297	312	1,125		2	1	0	0	0		
		Afua	329	227	Raihu Hos	209	35	99	05.12.17	1	0	0	0	0		Road
		Paup	1,653	1,824	Raihu Hos	2,088	277	1,026	05.12.17	1	1	0	0	0	BC Sandau	Road
15	YAKAMUL 1		1,055	994		974	185	490		1	1	0	0	0		
		Yakamul 1	1,055	994	Raihu Hos	974	185	490	03.12.17	1	1	0	0	0		Road
16	YAKAMUL 2		1,581	1,665		1,736	337	875		3	3	0	0	0		
		yakamul 2	851	884	Raihu Hos	846	175	422	03.12.17	1	1	0	0	0		Road
		Yakamul 3	545	543	Raihu Hos	596	109	300	03.12.17	1	1	0	0	0		Road
		Charok/Tawak	184	239	Raihu Hos	294	53	153	03.12.17	1	1	0	0	0		Road
17	ULAU 1		1,577	1,696		1,844	324	1,013		4	3	0	0	0		
		Chimau	604	620	Ulau HC	665	121	335	03.12.17	1	1	0	0	0		Road
		Ulabarai	627	640	Ulau HC	662	122	328	03.12.17	1	1	0	0	0		Road
		Ulayut	291	437	Ulau HC	517	81	350	03.12.17	1	1	0	0	0		Road
		Ulau 1	54	0	Ulau HC					1						Included Under Ulayut
18	ULAU 2		1,429	1,536		1,617	280	798		3	3	0	0	2		
		Deia	306	291	Ulau HC	368	71	184	03.12.17	1	1	0	0	2		Road
		Munai	688	679	Ulau HC	748	126	368	03.12.17	1	1	0	0	0		Road
		Marubien	435	567	Ulau HC	501	83	246	03.12.17	1	1	0	0	0		Road
19	SUAIN		1,905	1,897		1,851	399	938		4	2	0	0	0		
		Suain 1	1,179	1,071	Ulau HC	741	150	383	03.12.17	1	1	0	0	0		Road
		Suain 2	662	349	Ulau HC	1,110	249	555	03.12.17	1	1	0	0	0		Road
		Suain Cm	64	0	Ulau HC					1						Included under Suain 2
		Suain 3		477	Ulau HC					1						Included under Suain 2
20	LABUAIN		728	739		786	140	391		3	0	0	0	0		
		Labuai	440	440	Ulau HC	499	96	244	03.12.17	1	0	0	0	0	BC VANIM	Trek
		Mihet	160	155	Ulau HC	148	25	75	03.12.17	1	0	0	0	0	BC VANIM	Trek
		Aruk	128	144	Ulau HC	139	19	72	03.12.17	1	0	0	0	0	BC VANIM	Trek

LLG	WARD	VILLAGE	Estimated 2017 Data Based On 2000 Census	Estimated 2017 Data Based On 2014 Data	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Villages	Digicel	Bmobile	Citfon	Houses With Radios	Radio Networks	Comment
21	WOMSIS		1,162	1,114		1,002	143	513		4	0	0	0	0		
		Asapas	194	171	Ulau HC	184	44	100	03.12.17	1	0	0	0	0	BC VANIM	Trek
		Walawiga	165	218	Ulau HC	179	10	89	03.12.17	1	0	0	0	0	BC VANIM	Trek
		Womsis	431	430	Ulau HC	453	78	228	03.12.17	1	0	0	0	0	BC VANIM	Trek
		Walum	372	294	Ulau HC	186	11	96	03.12.17	1	0	0	0	0	BC VANIM	Trek
22	BALUP		553	592		571	85	278		2	2	0	0	0		
		Balup	352	348	Ulau HC	310	47	151	02.12.17	1	1	0	0	0		1 Day Trek
		Malin	201	244	Ulau HC	261	38	127	02.12.17	1	1	0	0	0		1 Day Trek
23	MATAPAU		420	409		356	72	182		1	0	0	0	0		
		Matapu	420	409	Ulau HC	356	72	182	02.12.17	1	0	0	0	0		1 Day Trek
24	AITAPE URBAN		7,468	8,045		8,276	1,397	4,267		22	16	5	0	626		
		1 Aitape West	324	1,498	Raihu Hos					1						Included under other areas
		2 Aitape East	608	223	Raihu Hos					1						Included under other areas
		3 Aitape Vocational	382	0	Raihu Hos	577	99	284	07.12.17	1	0	0	0	99		Road
		4 Pasis Settlement	51	0	Raihu Hos	742	114	368	07.12.17	1	1	1	0	0	BC VANIM	Road
		5 Airstrip Settlement	703	1,509	Raihu Hos	1,132	176	548	08.12.17	1	1	0	0	33	NBC Vanim	Road
		6 Aitape 06	443	0	Raihu Hos	488	86	241	07.12.17	1						Road
		7 St Anna	650	745	Raihu Hos	684	100	335		1	1	1	0	93		Road
		8 Fatima Hill Settlement (2)	514	933	Raihu Hos	279	45	140	16.11.17	1	1	0	0	44	NBC Vanim	Road
		9 Raihu Hospital Residence	652	463	Raihu Hos	136	50	136	06.12.17	1	1	0	0	0	NBC Vanim	Road
		10 Raihu Settlement	955	309	Raihu Hos	254	50	246	06.12.17	1	1	0	0	0	NBC Vanim	Road
		11 Lumi Settlement	522	0	Raihu Hos					1						Included under other areas
		12 Tadjj Settlement	494	422	Raihu Hos	261	50	128	05.12.17	1	0	0	0	0		Road
		13 St Ignatious High School	476	1,123	Raihu Hos	559	100	277	16.11.17	1	1	0	0	100	BC Sandau	Road
		14 St Anna Hill	395	819	Raihu Hos	325	50	158	16.11.17	1	1	0	0	0		Road
		15 Yili Arop Settlement	300	0	Raihu Hos	310	50	152	16.11.17	1	1	0	0	0	NBC Vanim	Road
		16 Pou/Nuku Camp			Raihu Hos	296	50	143	16.11.17	1	1	0	0	0	NBC Vanim	Road
		17 Fletcher/Rowells Compound			Raihu Hos	308	50	147	16.11.17	1	1	0	0	31	BC Sandau	Road
		18 Labuaina Camp			Raihu Hos	191	28	94	16.11.17	1	1	0	0	0	BC Sandau	Road
		19 Sopil /Rere / Keino			Raihu Hos	385	64	195	16.11.17	1	1	0	0	54	BC Sandau	Road
		20 Pikus Camp			Raihu Hos	233	50	115	16.11.17	1	1	1	0	32		Road
		21 Aitape Hill			Raihu Hos	666	100	331	16.11.17	1	1	1	0	91		Road
		22 Fatima Hill (1)			Raihu Hos	450	85	229	16.11.17	1	1	1	0	49		Road
EAST WAPIA RURAL			12,926	13,015		14,234	2,973	6,986		54	47	0	0	126	8	
1	KAMNOM		998	1,062		1,192	201	558		5	5	0	0	17		
		Gutaiya	224	282	Lumi HC	306	47	144	30.11.17	1	1	0	0	0		1 Day Trek
		Kamnorn	349	323	Lumi HC	366	63	166	30.11.17	1	1	0	0	3		1 Day Trek
		Parisko	165	166	Lumi HC	183	33	90	30.11.17	1	1	0	0	2		1 Day Trek
		Tubum	127	137	Lumi HC	160	30	76	30.11.17	1	1	0	0	11		1 Day Trek
		Wiup	133	155	Lumi HC	177	28	82	30.11.17	1	1	0	0	1		1 Day Trek
2	BULWO		316	399		422	57	185		2	1	0	0	0		
		Bulwo	209	203	Bulwo	222	30	94	03.12.17	1	1	0	0	0	Radio Sanda	Air/Trek
		Galgatu	107	196	Bulwo	200	27	91	28.11.17	1	0	0	0	0	Radio Sanda	Air/Trek
3	YIKLAU		1,146	1,386		1,641	268	729		3	3	0	0	0		
		Gilauto	184	227	Bulwo	231	39	107	29.11.17	1	1	0	0	0	Radio Sanda	Air/Trek
		Wokien	254	327	Bulwo	377	54	171	29.11.17	1	1	0	0	0	Radio Sanda	Air/Trek
		Yiklau	708	832	Bulwo	1,033	175	451	29.11.17	1	1	0	0	0	Radio Sanda	Air/Trek
4	MAUROM		435	572		601	102	285		1	0	0	0	2		
		Maurom	435	572	Kweftim	601	102	285	30.11.17	1	0	0	0	2	Radio Sanda	Air/ 2 Day Trek 1 Night
5	KULNOM		286	393		376	65	178		1	0	0	0	0		
		Kulnom	286	393	Kweftim	376	65	178	30.11.17	1	0	0	0	0	Radio Sanda	Air/2 Day Trek 1 Night
6	KWEFTIM		258	303		323	61	152		1	1	0	0	24		
		Kweftim	258	303	Kweftim	323	61	152	30.11.17	1	1	0	0	24	Radio Sanda	Air/ 3 days trek 2 nights
7	ERITEI 2		425	368		332	85	181		2	1	0	0	2		
		Eritei 2	296	264	Yebil	250	61	134	30.11.17	1	1	0	0	1		4 hours trek
		Twaite	128	105	Yebil	82	24	47	30.11.17	1	0	0	0	1		4 hours trek
8	TAUTE		1,088	868		1,127	225	550		4	4	0	0	0		
		Boru'um	119	80	Lumi HC	119	25	57	02.12.17	1	1	0	0	0		2 Hr Trek
		Lau'um	224	197	Lumi HC	268	62	148	02.12.17	1	1	0	0	0		4 Hr Trek
		Taute	438	304	Lumi HC	369	76	186	05.12.17	1	1	0	0	0		4 Hr Trek
		Wikili	308	288	Lumi HC	371	62	159	02.12.17	1	1	0	0	0		4 Hr Trek
9	MAUI \ TALBIBI		1,470	1,219		1,363	304	701		4	4	0	0	22		
		Kielbuf	216	147	Lumi HC	160	35	80	01.12.17	1	1	0	0	0		4 Hr Trek
		Mau	507	424	Lumi HC	482	120	252	04.12.17	1	1	0	0	21		Road
		Talbibi	542	455	Lumi HC	539	109	277	01.12.17	1	1	0	0	0		5Hr Trek
		Wabuf	206	193	Lumi HC	182	40	92	04.12.07	1	1	0	0	1		Road
10	LUMI		994	909		897	217	456		4	3	0	0	2		
		Ali	231	218	Lumi HC	240	48	128	05.12.17	1	0	0	0	0		Road
		Lumi Village	433	341	Lumi HC	355	79	171	06.12.17	1	1	0	0	0		Road
		Otemgi	258	211	Lumi HC	224	74	117	04.12.17	1	1	0	0	2		Road
		Lumi Station	72	138	Lumi HC	78	16	40	04.12.17	1	1	0	0	0		Road
11	OUTE		1,241	1,083		1,188	265	623		7	7	0	0	22		
		Flobu'um	191	187	Lumi HC	243	54	124	02.12.17	1	1	0	0	13		4 Hr Trek
		Mimbite	140	70	Lumi HC	55	18	32	03.12.17	1	1	0	0	0		4 Hr Trek
		Metaite	81	149	Lumi HC	139	27	68	02.12.17	1	1	0	0	8		4 Hr Trek
		Naraite	115	71	Lumi HC	85	26	50	03.12.17	1	1	0	0	0		4 Hr Trek
		Sapte	72	80	Lumi HC	80	19	37	02.12.17	1	1	0	0	0		3 Hr Trek
		Oute	459	369	Lumi HC	436	90	225	04.12.17	1	1	0	0	0		4 Hr Trek
		Tauwitei	183	157	Lumi HC	150	31	87	01.12.17	1	1	0	0	1		4 Hr Trek
12	TABALE		2,000	1,932		2,029	484	1,022		7	7	0	0	21		
		Milliom	242	243	Lumi HC	244	50	116	03.12.17	1	1	0	0	0		Road
		Orutei	226	217	Lumi HC	205	49	101	03.12.17	1	1	0	0	3		Road
		Senim	308	263	Lumi HC	347	64	172	02.12.17	1	1	0	0	6		2 Hr Trek
		Teloute	481	475	Lumi HC	498	135	248	04.12.17	1	1	0	0	0		Road
		Tabale	491	472	Lumi HC	498	145	269	03.12.17	1	1	0	0	0		Road

LLG	WARD	VILLAGE	Estimated 2017 Data Based On 2000 Census	Estimated 2017 Data Based On 2014 Data	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Villages	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
		Lumi Dist.Hd/Quat.	186	179	Lumi HC	142	23	70	04.12.17	1	1	0	0	11		Road
		Lumi High Sch	68	84	Lumi HC	95	18	46	03.12.17	1	1	0	0	1		Road
13	KARATE		1,297	1,318		1,451	371	744		7	7	0	0	11		
		Bien	161	204	Lumi HC	223	61	110	03.12.17	1	1	0	0	0		Road
		Karate	496	450	Lumi HC	498	137	265	04.12.17	1	1	0	0	0		Road/(Trek-Polopu)
		Keibam	120	133	Lumi HC	148	42	72	10.12.17	1	1	0	0	1		Road
		Sibite	219	175	Lumi HC	197	50	106	10.12.17	1	1	0	0	2		Road
		Tuare	150	167	Lumi HC	146	32	70	10.12.17	1	1	0	0	6		Road
		Taipli	89	105	Lumi HC	140	26	71	03.12.17	1	1	0	0	0		Trek
		Korkom	63	85	Lumi HC	99	23	50	03.12.17	1	1	0	0	2		Trek
14	SAINDE		364	329		331	69	163		1	1	0	0	0		
		Sainde	364	329	Fatima HC	331	69	163	10.12.17	1	1	0	0	0		3 Hr Trek
15	MABUL		606	873		961	199	459		5	3	0	0	3		
		Lingi	222	204	Lumi HC	194	37	98	10.12.17	1	0	0	0	0		1 Day Trek
		Mabul	122	135	Lumi HC	179	42	87	09.12.17	1	1	0	0	0		1 Day Trek
		Tange	183	200	Lumi HC	234	55	109	09.12.17	1	1	0	0	0		1 Day Trek
		Lipai	79	108	Lumi HC	104	24	50	09.12.17	1	1	0	0	0		1 Day Trek
		Abseim		226	Lumi HC	250	41	115	10.12.17	1	0	0	0	3		1 Day Trek
WEST AITAPE RURAL			22,966	24,665		23,474	4,239	11,470		35	22	0	0	81	0	
1	NIMAS		892	908		1,042	195	489		1	1	0	0	0		
		Nimas	892	908	Olbrum HC	1,042	195	489	24.11.17	1	1	0	0	0		Boat
2	MAINYA (SISSANO)		1,284	1,996		2,274	379	1,079		4	4	0	0	0		
		Amsor	448	997	Olbrum HC	1,032	149	482		1	1	0	0	0		Boat
		Mainya (Sissano)	836	583	Olbrum HC	131	30	63	02.12.17	1	1	0	0	0		Boat
		Raiynbrum Log Point		416	Olbrum HC	552	100	263	02.12.17	1	1	0	0	0		Boat
		Raiynbrum			Olbrum HC	559	100	271	02.12.17	1	1	0	0	0		
3	MAINDRON (SISSANO)		1,291	1,392		1,312	231	631		1	0	0	0	1		
		Maindron (Sissano)	1,291	1,392	Olbrum HC	1,312	231	631		1	0	0	0	1		Boat
4	PAUPA		2,973	2,490		2,471	493	1,187		1	0	0	0	20		
		Barupu	2,973	2,490	Olbrum HC	2,471	493	1,187		1	0	0	0	20		Boat
5	AROP 1		2,020	2,015		1,836	322	875		1	1	0	0	0		
		Arop 1	2,020	2,015	Olbrum HC	1,836	322	875	01.02.18	1	1	0	0	0		Boat
6	AROP 2		906	1,036		1,046	180	484		1	1	0	0	0		
		Arop 2	906	1,036	Olbrum HC	1,046	180	484	01.02.18	1	1	0	0	0		Boat
7	MAINYEN		2,093	2,612		2,997	444	1,436		3	3	0	0	0		
		Amsor (Malol)	726	975	Bokamo HC	889	144	418	02.02.18	1	1	0	0	0		Road
		Mainyeu (Malol)	698	794	Bokamo HC	1,254	150	603	02.02.18	1	1	0	0	0		Road
		Uian (Malol)	668	842	Bokamo HC	854	150	415	02.02.18	1	1	0	0	0		Road
8	TANYAPIN		1,860	1,567		1,469	289	701		2	2	0	0	0		
		Aindrín	1,235	1,018	Bokamo HC	979	189	466	02.02.18	1	1	0	0	0		Road
		Tanyapin	626	549	Bokamo HC	490	100	235	02.02.18	1	1	0	0	0		Road
9	AIPOKON		1,167	1,142		1,071	189	505		1	0	0	0	0		
		Aipokon	1,167	1,142	Bokamo HC	1,071	189	505	03.02.18	1	0	0	0	0		Road
10	NENGIAN		578	783		716	149	339		1	1	0	0	0		
		Nengian	578	783	Pes HC	716	149	339	01.02.18	1	1	0	0	0		Road
11	KOINIRI		492	462		488	91	229		1	1	0	0	0		
		Goiniri	492	462	Pes HC	488	91	229	01.02.18	1	1	0	0	0		Road
12	WALWALE		395	437		441	76	207		1	0	0	0	0		
		Walwale	395	437	Pes HC	441	76	207	31.01.18	1	0	0	0	0		Road
13	ROMEI		357	409		428	88	204		1	1	0	0	0		
		Romei	357	409	Pes HC	428	88	204	31.01.18	1	1	0	0	0		Road
14	BARERA		645	920		600	110	286		1	0	0	0	0		
		Barera	645	920	Pes HC	600	110	286	31.01.18	1	0	0	0	0		Road
15	KAIYE		425	582		185	119	272		2	1	0	0	0		
		Kaiye	188	296	Pes HC	185	119	272	18.01.18	1	1	0	0	0		Road/Dist,2017
		Karandu	237	285	Pes HC					1						Included under Kaiye
16	MAFOKA		267	252		348	50	166		1	0	0	0	30		
		Mafoka	267	252	Olbrum HC	348	50	166	18.01.18	1	0	0	0	30		Road
17	MORI		555	647		603	85	289		2	1	0	0	0		
		Mori	366	327	Olbrum HC	359	50	172	18.01.18	1	1	0	0	0		Road/Dist,2017
		Savamui	189	320	Olbrum HC	244	35	117	18.01.18	1	0	0	0	0		Road/Dist,2017
18	MUMURU		173	293		208	39	100		1	0	0	0	0		
		Mumuru	173	293	Olbrum HC	208	39	100	18.01.18	1	0	0	0	0		Road
19	SUMO		910	1,164		1,089	191	520		1	1	0	0	0		
		Sumo	910	1,164	Olbrum HC	1,089	191	520	18.01.18	1	1	0	0	0		Road
20	RAMO		1,100	1,269		811	166	492		2	0	0	0	15		
		Ramo	1,100	1,119	Olbrum HC	685	132	432	18.01.18	1	0	0	0	12		Road
		VJ Base Camp		150	Olbrum HC	126	34	60	18.01.18	1	0	0	0	3		Road
21	POU		673	738		794	182	381		1	1	0	0	0		
		Pou	673	738	Olbrum HC	794	182	381	28.01.18	1	1	0	0	0		Road
22	SARAI		482	472		477	65	226		1	1	0	0	2		
		Sarai	482	472	Olbrum HC	477	65	226	18.01.18	1	1	0	0	2		Road
23	RAINUK		1,151	654		338	52	164		2	1	0	0	10		
		Rainuk	364	312	Olbrum HC	338	52	164	18.01.18	1	1	0	0	10		Road
		Vpp Base Camp	787	342	Olbrum HC					1						Road
24	AMSUKU		275	428		430	54	208		2	1	0	0	3		
		Amsuku	275	428	Olbrum HC					1						Ward Name
		Puindu			Olbrum HC	430	54	208	18.01.18	1	1	0	0	3		Road
WEST WAPIA RURAL			14,797	11,934		12,817	2,756	6,332		56	39	1	0	445	38	
1	KABORE		701	513		519	90	251		4	3	0	0	3		
		Gara	158	159	Lumi HC2	115	16	53	08.12.17	1	1	0	0	3	adio Sanda	2 Day Trek
		Kabore 1	209	234	Lumi HC2	261	44	129	08.12.17	1	1	0	0	0	adio Sanda	2 Day Trek
		Kabore 2	262	120	Lumi HC2	143	30	69	08.12.17	1	1	0	0	0	adio Sanda	2 Day Trek
		Kabore Base Camp	72	0	Lumi HC2					1						2 Day Trek

LLG	WARD	VILLAGE	Estimated 2017 Data Based On 2000 Census	Estimated 2017 Data Based On 2014 Data	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Villages	Digicel	Bmobile	Citfon	Houses With Radios	Radio Networks	Comment
2	MOLMO		570	463		467	98	205		3	3	0	0	0		
		Wondu	66	113	Lumi HC2	148	29	61	08.12.17	1	1	0	0	0	Radio Sanda	2 Day Trek
		Molmo	415	245	Lumi HC2	190	40	85	08.12.17	1	1	0	0	0	Radio Sanda	2 Day Trek
		Siam	89	105	Lumi HC2	129	29	59	08.12.17	1	1	0	0	0	Radio Sanda	2 Day Trek
3	PELAMA		621	604		632	106	309		4	3	0	0	51		
		Mauwil	270	204	Kweftim2	260	50	137	30.11.17	1	1	0	0	0	Radio Sanda	Air/3 Day Trek 2 Nights
		Pelama	188	156	Kweftim2	186	28	86	30.11.17	1	1	0	0	23	Radio Sanda	Air/4 Day Trek 3 Nights
		Yokman	56	115	Kweftim2					1					Radio Sanda	Air/4 Day Trek 3 Nights
		Mitini	107	129	Kweftim2	186	28	86	30.11.17	1	1	0	0	28	Radio Sanda	Air/4 Day Trek 3 Nights
4	KAKOI		850	504		642	143	316		4	2	0	0	32		
		Kakoi	372	142	Yebil2	235	47	115	22.11.17	1	1	0	0	8	Radio Sanda	Air/9hr Trek
		Kwatim	166	125	Yebil2	144	39	70	22.11.17	1	0	0	0	16	Radio Sanda	Air/9hr Trek
		Kwamtum	119	98	Yebil2	113	26	54	23.11.17	1	0	0	0	8	Radio Sanda	Air/9 hr Trek
		Timeni	193	139	Yebil2	150	31	77	30.11.17	1	1	0	0	0	Radio Sanda	Air/9hr Trek
5	YEBIL		1,212	953		993	200	489		4	4	0	0	25		
		Talou	143	134	Yebil2	145	34	75	30.11.17	1	1	0	0	0	Radio Sanda	Air/7-8 hr Trek
		Kalingam	176	163	Yebil2	168	32	79	30.11.17	1	1	0	0	7	Radio Sanda	Air/7 hr Trek
		Urutei	97	80	Yebil2	68	14	32	30.11.17	1	1	0	0	0	Radio Sanda	Air/ 5hr Trek
		Yebil	795	576	Yebil2	612	120	303	30.11.17	1	1	0	0	18	Radio Sanda	Air/3 hr Trek
6	INEBU		1,752	1,500		1,443	265	651		4	2	0	0	47		
		Alkula	398	313	Lumi HC2	330	68	149	25.11.17	1	1	0	0	24	Radio Sanda	1 Day Trek
		Inebu	859	715	Lumi HC2	715	131	327	08.12.17	1	1	0	0	0	Radio Sanda	1 Day Trek
		Piako	306	306	Lumi HC2	214	40	97	20.11.17	1	0	0	0	21	Radio Sanda	1 Day Trek
		Kalema	188	167	Lumi HC2	184	26	78	19.11.17	1	0	0	0	2	Radio Sanda	1 Day Trek
7	MOKAI		626	596		757	158	364		4	3	0	0	31		
		Kalau	79	122	Lumi HC2	164	26	73	08.12.17	1	1	0	0	18	Radio Sanda	1 Day Trek
		Mokai	234	124	Lumi HC2	209	41	102	08.12.17	1	1	0	0	3	Radio Sanda	1 Day Trek
		Wantipi	100	102	Lumi HC2	129	24	60	06.12.17	1	1	0	0	0	Radio Sanda	1 Day Trek
		Wuguble	212	247	Lumi HC2	255	67	129	15.11.17	1	0	0	0	10	Radio Sanda	1 Day Trek
8	KARAITEM		1,320	1,010		1,049	285	556		6	6	0	0	128		
		Amaitem	207	139	Lumi HC2	150	36	72	06.12.17	1	1	0	0	10	Radio Sanda	Road
		Karaitem	394	203	Lumi HC2	198	50	101	02.12.17	1	1	0	0	26	Radio Sanda	Road
		Maiwetem	224	181	Lumi HC2	198	54	113	19.11.17	1	1	0	0	50	Radio Sanda	Road
		Pai	240	218	Lumi HC2	242	96	147	06.12.17	1	1	0	0	42	Radio Sanda	Road
		Tofungu	161	173	Lumi HC2	169	28	79	05.12.17	1	1	0	0	0	Radio Sanda	Road
		Wai'eii	94	96	Lumi HC2	92	21	44	05.12.17	1	1	0	0	0	Radio Sanda	Road
9	MINATE		1,447	1,157		1,131	250	574		6	6	0	0	26		
		Minate 1	374	302	Lumi HC2	207	43	104	01.12.17	1	1	0	0	4	Radio Sanda	Road/4 Hr Trek
		Su Goite	201	93	Lumi HC2	108	14	49	01.12.17	1	1	0	0	2	Radio Sanda	Road/4 Hr Trek
		Yongite	384	358	Lumi HC2	358	75	183	01.12.17	1	1	0	0	4	Radio Sanda	Road/4 Hr Trek
		Wolwalem	155	131	Lumi HC2	122	24	61	01.12.17	1	1	0	0	2	Radio Sanda	Road/4 Hr Trek
		Soulete	168	150	Lumi HC2	176	44	90	01.12.17	1	1	0	0	14	Radio Sanda	Road/4 Hr Trek
		Waunulu	166	123	Lumi HC2	160	50	87	01.12.17	1	1	0	0	0	Radio Sanda	Road/4 Hr Trek
10	SIBOTE		1,139	985		1,210	249	611		5	0	0	0	6		
		Orweb/Eritei 1	137	163	Fatima HC2	285	53	141	10.12.17	1	0	0	0	1		4 Hr Trek
		Rawatei	349	281	Fatima HC2	270	63	135	10.12.17	1	0	0	0	2		4 Hr Trek
		Sibote	226	174	Fatima HC2	220	45	113	09.12.17	1	0	0	0	0		4 Hr Trek no white copies!
		Sigaito	318	241	Fatima HC2	318	62	160	10.12.17	1	0	0	0	0		4 Hr Trek
		Wagoite	110	125	Fatima HC2	117	26	62	10.12.17	1	0	0	0	3		4 Hr Trek
11	MIWAUTI		835	780		764	185	376		2	1	0	0	15		
		Miwaute	512	480	Fatima HC2	436	113	220	09.12.17	1	0	0	0	8		2 Hr Trek
		Wilbeite	323	300	Fatima HC2	328	72	156	10.12.17	1	1	0	0	7		2 Hr Trek
12	WABUTE		692	515		712	153	353		2	2	0	0	45		
		Sarboute	234	168	Fatima HC2	166	40	86	10.12.17	1	1	0	0	4		2 Hr Trek
		Wabute	458	348	Fatima HC2	546	113	267	10.12.17	1	1	0	0	41		2 Hr Trek
13	KUPUOM		1,148	795		847	211	435		3	2	0	0	5		
		Kupuom	430	356	Fatima HC2	363	86	185	10.12.17	1	0	0	0	1		1 Hr Trek
		Welium	652	360	Fatima HC2	385	96	197	10.12.17	1	1	0	0	1		1 Hr Trek
		Fatima Cath.Miss.	66	80	Fatima HC2	99	29	53	10.12.17	1	1	0	0	3		1 Hr Trek
14	WIGOTE		950	805		798	158	405		2	0	0	0	27		
		Tolgete	341	267	Fatima HC2	265	65	136	09.12.17	1	0	0	0	0		1 Hr Trek
		Wigote	609	538	Fatima HC2	533	93	269	10.12.17	1	0	0	0	27		1 Hr Trek
15	KUMNATE		935	752		853	205	437		3	2	1	0	4		
		El-uf/Eritei 1	398	330	Fatima HC2	336	98	178	10.12.17	1	0	1	0	0		Road
		Karaito	222	179	Fatima HC2	221	46	117	10.12.17	1	1	0	0	1		Road
		Kumnate	314	243	Fatima HC2	296	61	142		1	1	0	0	3		30 Min Trek

ANNEX TWO

SANDAUN PROVINCE
NUKU DISTRICT POPULATION 2017
LLIN DISTRIBUTION SUMMARY SHEET

LLG	WARD	VILLAGE	Estimated 2017 Data Based On 2000 Census	Estimated 2017 Data Based On 2014 Data	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Villages	Digicel	Bmobbile	Citifon	Houses With Radios	Radio Networks	Comment	
NUKU			74,156	74,156		75,099	15,372	37,802			176	175	0	0	263	42	
	MAWASE (NUKU CENTRAL) RURAL		35,092	34,206		34,932	7,613	18,063			63	62	0	0	0	0	
1	SELEPUT		830	802		782	141	379		1	1	0	0	0	0		
		Seleput	830	802	Nuku HC	782	141	379	04.12.17	1	1	0	0	0	0		2 Hr Trek
2	NUKU		1,539	1,638		1,569	375	810		2	2	0	0	0	0		
		Nuku	1,155	1,031	Nuku HC	1,094	251	563	28.11.17	1	1	0	0	0	0		Road
		Nuku Station	383	607	Nuku HC	475	124	247	28.11.17	1	1	0	0	0	0		Road
3	MANSUKU		1,030	922		979	224	491		2	2	0	0	0	0		
		Mansuku	957	745	Nuku HC	795	174	391	28.11.17	1	1	0	0	0	0		Road
		Wati Cath.Miss.	73	177	Nuku HC	184	50	100	28.11.17	1	1	0	0	0	0		Road
4	YIMINUM		852	735		742	200	431		1	1	0	0	0	0		
		Yimunum	852	735	Nuku HC	742	200	431	28.11.17	1	1	0	0	0	0		Road
5	YIFKINDU		1,083	1,044		1,048	247	493		1	1	0	0	0	0		
		Yifkindu	1,083	1,044	Nuku HC	1,048	247	493	28.11.17	1	1	0	0	0	0		Road
6	WILWIL		1,634	1,361		1,302	281	693		1	1	0	0	0	0		
		Wilwil	1,634	1,361	Nuku HC	1,302	281	693	28.11.17	1	1	0	0	0	0		Road
7	KAFLE		2,407	2,104		2,052	459	1,113		3	3	0	0	0	0		
		Kafle 1	1,366	1,254	Kafle HC	1,093	247	626	29.11.17	1	1	0	0	0	0		Road
		Kafle 2	1,041	850	Kafle HC	886	199	450	29.11.17	1	1	0	0	0	0		Road
		Kafle Station			Kafle HC	73	13	37	29.11.17	1	1	0	0	0	0		New Inclusion
8	KAFLE 3		1,107	1,184		1,201	300	610		1	1	0	0	0	0		
		Kafle 3	1,107	1,184	Kafle HC	1,201	300	610	29.11.17	1	1	0	0	0	0		Road
9	ARKOSAME 1		2,380	768		754	194	404		1	1	0	0	0	0		
		Arkosame 1	2,380	768	Kafle HC	754	194	404	29.11.17	1	1	0	0	0	0		Road
10	ARKOSAME 2		616	1,946		2,090	397	1,059		2	2	0	0	0	0		
		Arkosame 2	616	615	Kafle HC	805	147	425	29.11.17	1	1	0	0	0	0		Road
				1,331	Kafle HC	1,285	250	634	29.11.17	1	1	0	0	0	0		
11	HAMBASAMA		2,075	2,032		2,861	579	1,470		4	4	0	0	0	0		
		Hambasama	1,287	1,068	Nuku HC	1,486	300	753	29.11.17	1	1	0	0	0	0		Road
		Sepitala	730	964	Nuku HC	1,233	250	645	29.11.17	1	1	0	0	0	0		Road
		Nukuanglo	40	0	Nuku HC	44	12	22	29.11.17	1	1	0	0	0	0		Road
		Nuku High	18	0	Nuku HC	98	17	50	29.11.17	1	1	0	0	0	0		Road
12	ANGARA		1,877	1,630		1,714	456	922		5	5	0	0	0	0		
		Angara	487	381	Seim HC	395	114	214	03.12.17	1	1	0	0	0	0		Road
		Aterum	321	266	Seim HC	328	92	174	03.12.17	1	1	0	0	0	0		Road
		Awes	279	162	Seim HC	192	50	100	03.12.17	1	1	0	0	0	0		Road
		Poklo	354	445	Seim HC	395	100	205	03.12.17	1	1	0	0	0	0		Road
		Sabiga	437	376	Seim HC	404	100	229	03.12.17	1	1	0	0	0	0		Road
13	ABIGU		2,452	2,678		2,488	592	1,341		5	5	0	0	0	0		
		Abigu	409	443	Seim HC	346	100	200	04.12.17	1	1	0	0	0	0		Road
		Apduwano	487	489	Seim HC	500	150	292	04.12.17	1	1	0	0	0	0		Road
		Mambu	371	762	Seim HC	503	117	252	03.12.17	1	1	0	0	0	0		Road
		Yiriwandi	1,139	791	Seim HC	866	175	457	03.12.17	1	1	0	0	0	0		Road
		Seim Cath.Miss	47	193	Seim HC	273	50	140	04.12.17	1	1	0	0	0	0		Road
14	KEMBIEM		1,121	1,076		1,056	224	554		2	2	0	0	0	0		
		Kembiem	416	449	Seim HC	400	80	214	04.12.17	1	1	0	0	0	0		Road
		Usitamo	706	628	Seim HC	656	144	340	05.12.17	1	1	0	0	0	0		Road
15	HAMBANGRI		1,711	1,498		1,432	269	712		2	2	0	0	0	0		
		Hambangri	1,163	1,034	Seim HC	994	169	495	05.12.17	1	1	0	0	0	0		
		Sulunuku	548	464	Seim HC	438	100	217	04.12.17	1	1	0	0	0	0		Road
16	ENGIEP		914	928		1,020	223	478		2	2	0	0	0	0		
		Engiep	334	928	Seim HC	359	91	170	25.11.17	1	1	0	0	0	0		Road
		Imbiyip	580	0	Seim HC	661	132	308	24.11.17	1	1	0	0	0	0		Road
17	WOMBUI		1,389	1,132		1,309	319	662		3	3	0	0	0	0		
		Kalem	293	0	Seim HC	340	71	168	24.11.17	1	1	0	0	0	0		Road
		Teremes	379	0	Seim HC	315	50	147	27.11.17	1	1	0	0	0	0		Road
		Wombui	717	1,132	Seim HC	654	198	347	24.11.17	1	1	0	0	0	0		Road
18	YIMIN		580	909		578	109	385		2	1	0	0	0	0		
		Bel	150	173	Nuku HC					1							included under Yimin
		Yimin	430	735	Nuku HC	578	109	385	28.11.17	1	1	0	0	0	0		2 Day Trek
19	NAU' ALU		870	948		872	151	443		3	3	0	0	0	0		
		Nau'alu	303	269	Nuku HC	289	50	159	28.11.17	1	1	0	0	0	0		2 Day Trek
		Wurumulu	359	503	Nuku HC	394	63	187	28.11.17	1	1	0	0	0	0		2 Day Trek
		Fuspari	208	175	Nuku HC	189	38	97	28.11.17	1	1	0	0	0	0		2 Day Trek
20	GAMU		1,068	1,069		1,360	205	668		2	2	0	0	0	0		
		Gamu	611	565	Nuku HC	780	111	376	29.11.17	1	1	0	0	0	0		1 Day Trek
		Ulap	458	503	Nuku HC	580	94	292	29.11.17	1	1	0	0	0	0		1 Day Trek
21	SEMENGLA		1,209	1,292		1,268	320	635		2	2	0	0	0	0		
		Semengla	483	0	Nuku HC	292	70	148	25.11.17	1	1	0	0	0	0		1 Day Trek
		Wulbowe	725	1,292	Nuku HC	976	250	487	25.11.17	1	1	0	0	0	0		1 Day Trek
22	TUKINARO		909	1,137		1,207	250	611		1	1	0	0	0	0		
		Tukinaro	909	1,137	Nuku HC	1,207	250	611	25.11.17	1	1	0	0	0	0		1 Day Trek
23	UNDU		1,178	1,288		1,275	263	645		3	3	0	0	0	0		
		Undu	317	289	Nuku HC	543	100	257	29.11.17	1	1	0	0	0	0		Trek
		Vei	272	294	Nuku HC	70	13	34	29.11.17	1	1	0	0	0	0		Trek
		Yimut	588	705	Nuku HC	662	150	354	29.11.17	1	1	0	0	0	0		Trek
24	YINAUWI		1,362	1,486		1,481	292	775		4	4	0	0	0	0		
		Waspom	182	219	Nuku HC	224	43	122	29.11.17	1	1	0	0	0	0		1 Day Trek
		Porwate	232	206	Nuku HC	199	33	99	29.11.17	1	1	0	0	0	0		1 Day Trek

LLG	WARD	VILLAGE	Estimated 2017 Data Based On 2000 Census	Estimated 2017 Data Based On 2014 Data	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Villages	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
		Yauwo	377	382	Nuku HC	386	73	202	29.11.17	1	1	0	0	0		1 Day Trek
		Yimauwi/Kaikom	570	679	Nuku HC	672	143	352	29.11.17	1	1	0	0	0		1 Day Trek
25	MAIMAI		491	520		538	117	282		3	3	0	0	0		
		Mamai 1	192	203	Nuku HC	220	48	112	28.11.17	1	1	0	0	0		1 Day Trek
		Mamai 2	198	205	Nuku HC	211	47	110	28.11.17	1	1	0	0	0		1 Day Trek
		Mamai 3	102	112	Nuku HC	107	22	60	28.11.17	1	1	0	0	0		1 Day Trek
26	AIMUKILI		1,366	1,318		1,295	276	648		3	3	0	0	0		
		Aimukili/Wonum	524	413	Nuku HC	402	88	211	28.11.17	1	1	0	0	0		1 Day Trek
		Makafim	380	382	Nuku HC	474	100	225	28.11.17	1	1	0	0	0		1 Day Trek
		Rangwei	462	523	Nuku HC	419	88	212	28.11.17	1	1	0	0	0		1 Day Trek
27	MUKILI		1,041	761		659	150	349		2	2	0	0	0		
		Mukili	664	520	Nuku HC	396	100	215	28.11.17	1	1	0	0	0		1 Day Trek
		Yulem	377	241	Nuku HC	263	50	134	28.11.17	1	1	0	0	0		1 Day Trek
				0												
PALMA (PALA) RURAL			18,646	20,107		19,471	3,635	9,797		55	55	0	0	263	42	
1	KUVALVU		1,560	1,742		1,730	324	836		4	4	0	0	0		
		Kuvalvu	280	279	Nuku HC2	315	50	155	30.11.17	1	1	0	0	0		Road
		Suau	461	560	Nuku HC2	507	94	251	04.12.17	1	1	0	0	0		Road
		Werangyuwok	416	455	Nuku HC2	465	100	236	30.11.17	1	1	0	0	0		Road
		Yiliwambuk	403	448	Nuku HC2	443	80	194	30.11.17	1	1	0	0	0		Road
2	MONANDIN		896	798		840	181	447		2	2	0	0	58		
		Monandin	712	662	Wasisi HC	669	131	353	26.11.17	1	1	0	0	49	FM,AM	Road
		Sengi	184	135	Wasisi HC	171	50	94	26.11.17	1	1	0	0	9	FM,AM	Road
3	NANGEN		1,296	1,465		1,593	279	820		3	3	0	0	39		
		Nangen	342	334	Wasisi HC	399	82	214	26.11.17	1	1	0	0	19	FM,AM	Road/30 Min Trek
		Womgrir	487	546	Wasisi HC	514	97	267	26.11.17	1	1	0	0	5	FM,AM	Road/30 Min Trek
		Wumerau	467	585	Wasisi HC	680	100	339	26.11.17	1	1	0	0	15	FM,AM	Road/30 Min Trek
4	YADAGARO		807	758		856	150	441		3	3	0	0	11		
		Wambi/Wasaren	105	141	Wasisi HC	440	79	226	27.11.17	1	1	0	0	11	FM,AM	Road/2 Hr Trek
		Yadagaro	416	369	Wasisi HC	294	50	152	27.11.17	1	1	0	0	0	FM,AM	Road/2 Hr Trek
		Yamegil	287	248	Wasisi HC	122	21	63	27.11.17	1	1	0	0	0	FM,AM	Road/2 Hr Trek
5	SUNDUN		741	703		757	134	387		2	2	0	0	2		
		Sundun	346	311	Sibilanga HC	329	66	169	21.11.17	1	1	0	0	2	FM,AM	Road/1 Day Trek
		Yauan	395	392	Sibilanga HC	428	68	218	21.11.17	1	1	0	0	0	FM,AM	Road/1 Day Trek
6	KOLEMBI		374	714		448	91	235		3	3	0	0	0		
		Kolembi	180	270	Sibilanga HC	227	49	120	22.11.17	1	1	0	0	0	FM,AM	1 Day Trek
		King	42	261	Sibilanga HC	43	9	24	22.11.17	1	1	0	0	0	FM,AM	1 Day Trek
		Mup	151	182	Sibilanga HC	178	33	91	22.11.17	1	1	0	0	0	FM,AM	1 Day Trek
7	SUMAMBUM		743	792		906	161	461		4	4	0	0	3		
		Sumambun	284	314	Sibilanga HC	361	60	185	22.11.17	1	1	0	0	0	FM,AM	1 Day Trek
		Yinungen	148	135	Sibilanga HC	139	27	70	22.11.17	1	1	0	0	0	FM,AM	1 Day Trek
		Barkop	82	212	Sibilanga HC	226	42	115	22.11.17	1	1	0	0	0	FM,AM	1 Day Trek
		Anipo	229	131	Sibilanga HC	180	32	91	21.11.17	1	1	0	0	3	FM,AM	1 Day Trek
8	ASIER		893	1,139		931	182	521		4	4	0	0	4		
		Asier	245	273	Sibilanga HC	279	61	162	21.11.17	1	1	0	0	1	FM,AM	1 Day Trek
		Mambrika	111	268	Sibilanga HC	140	21	73	21.11.17	1	1	0	0	0	FM,AM	1 Day Trek
		Marakumba	193	267	Sibilanga HC	237	50	134	21.11.17	1	1	0	0	0	FM,AM	1 Day Trek
		Sibilanga	343	330	Sibilanga HC	275	50	152	21.11.17	1	1	0	0	3	FM,AM	1 Day Trek
9	BINARE		1,395	1,335		1,242	217	628		4	4	0	0	12		
		Binare	462	438	Wasisi HC	393	70	195	28.11.17	1	1	0	0	0	FM,AM	Road
		Suli-Mortei	374	365	Wasisi HC	353	61	184	28.11.17	1	1	0	0	11	FM,AM	Road
		walgo	398	389	Wasisi HC	360	62	181	28.11.17	1	1	0	0	1	FM,AM	Road
		Wasisi C/Miss.	161	143	Wasisi HC	136	24	68	28.11.17	1	1	0	0	0	FM,AM	Road
10	BOINI		1,476	1,596		1,592	289	781		4	4	0	0	11		
		Boni	374	400	Wasisi HC	393	70	191	27.11.17	1	1	0	0	2	FM,AM	Road
		Munumbal	317	368	Wasisi HC	404	82	210	27.11.17	1	1	0	0	2	FM,AM	Road
		Ori	351	413	Wasisi HC	435	77	210	27.11.17	1	1	0	0	7	FM,AM	Road
		Youlpa	433	415	Wasisi HC	360	60	170	28.11.17	1	1	0	0	0	FM,AM	Road
11	WARA		1,091	1,648		1,617	305	806		6	6	0	0	54		
		Wara/Sumil	285	427	Wasisi HC	324	66	155	28.11.17	1	1	0	0	0	FM,AM	Road
		Weiki	243	275	Wasisi HC	270	59	134	26.11.17	1	1	0	0	44	FM,AM	Road
		Wuro	380	665	Wasisi HC	458	85	237	28.11.17	1	1	0	0	10	FM,AM	Road
		Yapunda	182	282	Wasisi HC	203	34	100	28.11.17	1	1	0	0	0	FM,AM	Road
		Koma		NEW	Wasisi HC	169	28	84	27.11.17	1	1	0	0	0	FM,AM	Road
		Kauk		NEW	Wasisi HC	193	33	96	27.11.17	1	1	0	0	0	FM,AM	Road
12	MUKU		1,147	995		797	165	409		3	3	0	0	56		
		Muku	459	285	Wasisi HC	288	58	147	27.11.17	1	1	0	0	9	FM,AM	Road/2 Hr Trek
		Winbe	321	436	Wasisi HC	323	81	166	28.11.17	1	1	0	0	41	FM,AM	Road/2 Hr Trek
		Wowil	367	273	Wasisi HC	186	26	96	27.11.17	1	1	0	0	6	FM,AM	Road/2 Hr Trek
13	YERESI		841	844		963	165	467		1	1	0	0	0		
		Yeresi	841	844	Ningil HC2	963	165	467	27.11.17	1	1	0	0	0		Road
14	SABIG		991	962		936	206	458		2	2	0	0	0		
		Sabig	672	617	Ningil HC2	576	125	283	02.12.17	1	1	0	0	0		Road/3 Hr Trek
		Simbap	319	345	Ningil HC2	360	81	175	02.12.17	1	1	0	0	0		Road/3 Hr Trek
15	MAI		1,718	1,933		1,941	351	972		5	5	0	0	13		
		Mai	475	392	Wasisi HC	470	84	239	26.11.17	1	1	0	0	4	FM,AM	Road
		Wanali	222	244	Wasisi HC	254	50	131	26.11.17	1	1	0	0	0	FM,AM	Road
		Yambil	712	811	Nuku HC2	820	150	403	24.11.17	1	1	0	0	0		Road
		Yirki	73	216	Wasisi HC	137	27	70	27.11.17	1	1	0	0	2	FM,AM	Road
		Mesu	235	270	Wasisi HC	260	40	129	27.11.17	1	1	0	0	7	FM,AM	Road
16	WEMIL		442	496		440	68	215		1	1	0	0	0		
		Wemil	442	496	Ningil HC2	440	68	215	02.12.17	1	1	0	0	0		Trek
17	LEIKO		1,159	1,058		1,032	184	495		2	2	0	0	0		
		Leiko	685	747	Nuku HC2	710	134	348	24.11.17	1	1	0	0	0		1 Day Trek
		Libuat	474	311	Nuku HC2	322	50	147	24.11.17	1	1	0	0	0		1 Day Trek

LLG	WARD	VILLAGE	Estimated 2017 Data Based On 2000 Census	Estimated 2017 Data Based On 2014 Data	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Villages	Digicel	Bmibile	Citifon	Houses With Radios	Radio Networks	Comment
18	YEMEREBABA		1,078	1,129		850	183	418		2	2	0	0	0		
		Waniwomoka	583	512	Nuku HC2	408	100	206	24.11.17	1	1	0	0	0		1 Day Trek
		Yemereba	495	617	Nuku HC2	442	83	212	24.11.17	1	1	0	0	0		1 Day Trek
				0												
YANGKOK RURAL			20,417	19,843		20,696	4,124	9,942		58	58	0	0	0	0	
1	AUSIN \ YUMOUN		814	538		531	100	259		4	4	0	0	0		
		Ausini	139	160	Ningil HC	170	33	82	10.12.17	1	1	0	0	0		1 Day Trek
		Hapseim	305	0	Ningil HC					1	1	0	0	0		1 Day Trek
		Lilal	158	180	Ningil HC	186	30	92	10.12.17	1	1	0	0	0		1 Day Trek
		Yomoum	213	198	Ningil HC	175	37	85	10.12.17	1	1	0	0	0		1 Day Trek
2	MAPUN \ SIKEL		701	740		744	147	352		3	3	0	0	0		
		Mupun	259	251	Ningil HC	215	50	102	06.12.17	1	1	0	0	0		1 Day Trek
		Sikel	319	252	Ningil HC	375	64	175	07.12.17	1	1	0	0	0		1 Day Trek
		Soloku 2	122	238	Ningil HC	154	33	75	07.12.17	1	1	0	0	0		1 Day Trek
3	WEIKINT \ NUNSI		725	842		803	148	390		3	3	0	0	0		
		Auang	177	190	Ningil HC	217	44	107	06.12.17	1	1	0	0	0		1 Day Trek
		Nunsi	150	284	Ningil HC	233	50	112	05.12.17	1	1	0	0	0		1 Day Trek
		Weikint	398	368	Ningil HC	353	54	171	05.12.17	1	1	0	0	0		1 Day Trek
4	YUWIL \ YEMLU		765	673		897	183	418		2	2	0	0	0		
		Yemlu	163	195	Ningil HC	233	42	105	02.12.17	1	1	0	0	0		1 Day Trek
		Yuwil	603	478	Ningil HC	664	141	313	04.12.17	1	1	0	0	0		1 Day Trek
5	LAINGIM \ SOLOKU		1,199	1,270		1,105	207	531		4	4	0	0	0		
		Laingim 1	300	301	Ningil HC	333	67	163	05.12.17	1	1	0	0	0		4 Hr Trek
		Laingim 2	587	501	Ningil HC	538	91	262	05.12.17	1	1	0	0	0		4 Hr Trek
		Soloku 1	205	250	Ningil HC	191	40	86	05.12.17	1	1	0	0	0		4 Hr Trek
		Laingim C/Miss.	108	219	Ningil HC	43	9	20	05.12.17	1	1	0	0	0		4 Hr Trek
6	WULUKUM		762	719		727	130	355		1	1	0	0	0		
		Wulukum	762	719	Anguganak HC	727	130	355	07.12.17	1	1	0	0	0		Road
7	PIOM \ LALWI		622	652		732	134	360		3	3	0	0	0		
		Karuka	168	205	Anguganak HC	235	43	115	03.12.17	1	1	0	0	0		Road
		Lalui	234	197	Anguganak HC	228	44	112	09.12.17	1	1	0	0	0		Road
		Piom	221	250	Anguganak HC	269	47	133	03.12.17	1	1	0	0	0		Road
8	MAMBEL \ PIMON		545	435		475	101	225		4	4	0	0	0		
		Wauli	168	143	Anguganak HC	168	34	80	09.12.17	1	1	0	0	0		Road/1 Day Trek
		Mambel	166	112	Anguganak HC	158	30	74	09.12.17	1	1	0	0	0		Road/1 Day Trek
		Bimon	185	141	Anguganak HC	119	30	57	09.12.17	1	1	0	0	0		Road/1 Day Trek
		Bimon Com.Sch	26	39	Anguganak HC	30	7	14	09.12.17	1	1	0	0	0		Road/1 Day Trek
9	YILI \ POMOUM		925	982		1,082	190	522		4	4	0	0	0		
		Eikil	95	86	Puang HC	75	18	36	09.12.17	1	1	0	0	0		Road/1 Day Trek
		Yili 2 & Yili 3	230	292	Puang HC	411	73	199	09.12.17	1	1	0	0	0		Road/1 Day Trek
		Yili 1	372	443	Puang HC	438	70	212	09.12.17	1	1	0	0	0		Road/1 Day Trek
		Tomoum	227	160	Puang HC	158	29	75	09.12.17	1	1	0	0	0		Road/1 Day Trek
10	PINKIL \ BAIRAP		1,001	932		1,074	231	513		4	4	0	0	0		
		Lipoam	153	186	Puang HC	155	42	79	06.12.17	1	1	0	0	0		Road
		Nakil	280	250	Puang HC	275	50	128	06.12.17	1	1	0	0	0		Road
		Pinkil	237	266	Puang HC	303	50	140	06.12.17	1	1	0	0	0		Road
		Bairap	330	230	Puang HC	341	89	166	06.12.17	1	1	0	0	0		Road
11	WARIN \ WITAILI		825	947		876	196	420		3	3	0	0	0		
		Warin	417	535	Puang HC	455	98	219	08.12.17	1	1	0	0	0		Road/3 Hr Trek
		Witali	203	214	Puang HC	242	48	113	08.12.17	1	1	0	0	0		Road/3 Hr Trek
		Yutabi	205	198	Puang HC	179	50	88	08.12.17	1	1	0	0	0		Road/3 Hr Trek
12	PUANG \ WITIKIN		1,521	1,204		1,311	298	637		4	4	0	0	0		
		Puang	848	659	Puang HC	506	147	248	07.12.17	1	1	0	0	0		Road
		Witikin	369	238	Puang HC	238	50	113	07.12.17	1	1	0	0	0		Road/2 Hr Trek
		Mesi	305	307	Puang HC	332	59	161	06.12.17	1	1	0	0	0		Road/2 Hr Trek
		Puang Station			Puang HC	235	42	115	08.12.17	1	1	0	0	0		
13	WEIS \ WITWAN		1,213	1,326		1,490	339	716		4	4	0	0	0		
		Wititai	413	461	Puang HC	486	101	234	08.12.17	1	1	0	0	0		4 Hr Trek
		Witwan	245	228	Puang HC	358	90	171	08.12.17	1	1	0	0	0		4 Hr Trek
		Weis	385	447	Puang HC	446	100	215	08.12.17	1	1	0	0	0		4 Hr Trek
		Wosin	171	191	Puang HC	200	48	96	08.12.17	1	1	0	0	0		4 Hr Trek
14	TOMOTONIK \ YEMNU		1,563	1,372		1,604	310	778		2	2	0	0	0		
		Tomontonik	461	427	Puang HC	702	140	340	09.12.17	1	1	0	0	0		3 Hr Trek
		Yemnu	1,102	945	Puang HC	902	170	438	09.12.17	1	1	0	0	0		3 Hr Trek
15	AMGUGANAK		957	984		950	150	459		2	2	0	0	0		
		Anguganak	628	709	Anguganak HC	618	100	299	09.12.17	1	1	0	0	0		Road
		Winaluk	329	275	Anguganak HC	332	50	160	09.12.17	1	1	0	0	0		Road
16	RAWOT		770	881		897	200	437		1	1	0	0	0		
		Rawot	770	881	Anguganak HC	897	200	437	09.12.17	1	1	0	0	0		Road
17	MAIMBIL		870	916		719	143	346		1	1	0	0	0		
		Maimbil	870	916	Anguganak HC	719	143	346	09.12.17	1	1	0	0	0		1 Day Trek
18	BRUGAP \ BOGASIP		1,275	1,210		1,332	296	636		2	2	0	0	0		
		Bogasip	495	479	Anguganak HC	511	100	247	09.12.17	1	1	0	0	0		1 Day Trek
		Brugap	780	731	Anguganak HC	821	196	389	08.12.17	1	1	0	0	0		4 Hr Trek
19	YANKOK		1,084	902		1,150	209	549		3	3	0	0	0		
		Yankok	769	706	Anguganak HC	776	142	371	05.12.17	1	1	0	0	0		Road
		Anguganak Miss.	52	158	Anguganak HC	277	50	132	05.12.17	1	1	0	0	0		Road
		Yangkok St	264	38	Anguganak HC	97	17	46	05.12.17	1	1	0	0	0		Road
20	NINGIL		1,534	1,568		1,512	293	716		2	2	0	0	0		
		Ningil 1	1,481	1,458	Ningil HC	1,441	269	680	04.12.17	1	1	0	0	0		Road
		Ningil C/Miss.	53	110	Ningil HC	71	24	36	04.12.17	1	1	0	0	0		Road
21	MUSHU \ WOBLAKIL		746	750		685	119	323		2	2	0	0	0		
		Mushu	313	300	Anguganak HC	278	45	129	10.12.17	1	1	0	0	0		1 Day Trek
		Wublakil	433	450	Anguganak HC	407	74	194	10.12.17	1	1	0	0	0		1 Day Trek

ANNEX THREE

SANDAUN PROVINCE
VANIMO GREEN RIVER POPULATION 2017
LLIN DISTRIBUTION SUMMARY SHEET

LLG	WARD	VILLAGE	Estimated 2017 Data Based On 2000 Census	Estimated 2017 Data Based On 2014 Data	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Villages	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
VANIMO GREEN RIVER			74,708	89,050		91,731	14,816	44,107		287	97	6	0	2,061	220	
AMANAB RURAL			14,101	15,231		15,909	2,715	7,537		79	27	0	0	380	79	
1	BIBRIARI		871	904		891	192	433		5	2	0	0	14		
		Bibriari	137	136	Amanab HC	150	36	68	23.11.17	1	1	0	0	0	NBC	Road
		Biwan (Bibriari)	333	341	Amanab HC	319	70	159	23.11.17	1	0	0	0	14	NBC	Road
		Nai 1	113	118	Amanab HC	127	20	63	23.11.17	1	0	0	0	0	NBC	Road/1 Hr Trek
		Senagi	138	136	Amanab HC	138	32	65	23.11.17	1	0	0	0	0	NBC	Road/1 Hr Trek
		Wamu	150	173	Amanab HC	157	34	78	23.11.17	1	1	0	0	0	NBC	Road
2	FOROMUN		682	749		711	136	344		4	2	0	0	0		
		Amondon	74	0	Amanab HC	75	25	35	18.11.17	1	0	0	0	0	NBC	Road/4 Hr Trek
		Kwaramun	336	552	Amanab HC	278	52	137	18.11.17	1	1	0	0	0	NBC	Road/4 Hr Trek
		Purumun	172	184	Amanab HC	206	34	100	18.11.17	1	1	0	0	0	NBC	Road/4 Hr Trek
		Unupai	100	12	Amanab HC	152	25	72	18.11.17	1	0	0	0	0	NBC	Road/4 Hr Trek
3	ITOMI		506	763		1,393	185	566		4	0	0	0	20		
		Fas 3	236	315	Amanab HC	654	90	274	12.11.17	1	0	0	0	6	NBC	Road
		Finamoi	78	80	Amanab HC	269	36	100	19.11.17	1	0	0	0	0	NBC	Road
		Itomi	193	212	Amanab HC	257	32	107	11.11.17	1	0	0	0	4	NBC	Road
		Fiyemi		156	Amanab HC	213	27	85	11.11.17	1	0	0	0	10	NBC	Road
4	MAMAMURA		788	619		637	111	296		5	0	0	0	24		
		Mamamura	250	173	Kamberatoro HC	162	33	75	17.11.17	1	0	0	0	24	NBC	4 Hr Trek
		Mongrovei	60	0	Kamberatoro HC	55	9	26	18.11.17	1	0	0	0	0	NBC	4 Hr Trek
		Nindebai	206	144	Kamberatoro HC	157	27	72	17.11.17	1	0	0	0	0	NBC	4 Hr Trek
		Orkwanda	59	134	Kamberatoro HC	98	17	45	18.11.17	1	0	0	0	0	NBC	4 Hr Trek
		Yamamainda	212	168	Kamberatoro HC	165	25	78	17.11.17	1	0	0	0	0	NBC	4 Hr Trek
5	WAHAI		593	428		496	93	220		5	0	0	0	16		
		Bambol	191	100	Kamberatoro HC	114	23	45	18.11.17	1	0	0	0	0	NBC	4 Hr Trek
		Mangali	103	74	Kamberatoro HC	80	18	37	18.11.17	1	0	0	0	8	NBC	4 Hr Trek
		Wagurinda	163	90	Kamberatoro HC	122	21	56	16.11.17	1	0	0	0	5	NBC	4 Hr Trek
		Wahai	135	71	Kamberatoro HC	79	12	36	16.11.17	1	0	0	0	3	NBC	4 Hr Trek
		Mangau		93	Kamberatoro HC	101	19	46	16.11.17	1	0	0	0	0	NBC	4 Hr Trek
6	KAMBERATORO		658	504		620	93	289		5	0	0	0	21		Kamberatoro 6-7 Hours From Amanab HC
		Akimari 1	175	102	Kamberatoro HC	104	20	54	15.11.17	1	0	0	0	0	NBC	5 Minutes From HC
		Kamberatoro	240	222	Kamberatoro HC	279	28	126	16.11.17	1	0	0	0	0	NBC	HC Here
		Nimberatoro	112	98	Kamberatoro HC	93	18	42	16.11.17	1	0	0	0	11	NBC	1 Hr Walk
		Tamarbek	85	50	Kamberatoro HC	84	18	39	15.11.17	1	0	0	0	9	NBC	4 Hr Trek
		Kamberatoro C/M	46	32	Kamberatoro HC	60	9	28	15.11.17	1	0	0	0	1	NBC	HC Here
7	KOFINIAU		682	711		674	131	325		3	1	0	0	5		
		Lihen	125	172	Amanab HC	153	36	79	20.11.17	1	0	0	0	1	NBC	3-4 Hr Trek
		Kabaineri	208	98	Amanab HC	218	33	104	20.11.17	1	0	0	0	1	NBC	3-4 Hr Trek
		Kofiniau (Apu)	349	441	Amanab HC	303	62	142	20.11.17	1	1	0	0	3	NBC	3-4 Hr Trek
8	IAFAR		832	934		903	169	446		5	2	0	0	18		
		Iafar 1	163	203	Amanab HC	151	29	69	18.11.17	1	0	0	0	9	NBC	5 Hr Trek
		Iafar 2	109	99	Amanab HC	88	16	44	18.11.17	1	0	0	0	5	NBC	5 Hr Trek
		Iafar 3	110	174	Amanab HC	161	32	80	18.11.17	1	0	0	0	3	NBC	5 Hr Trek
		Pateineri 1	330	316	Amanab HC	358	64	178	21.11.17	1	1	0	0	1	NBC	6 Hr Trek
		Pateineri 2	119	142	Amanab HC	145	28	75	18.11.17	1	1	0	0	0	NBC	6 Hr Trek
9	NAINERI		1,148	1,349		898	166	449		4	2	0	0	1		
		Naineri 2 (Moas)	249	337	Amanab HC	217	43	109	18.11.17	1	1	0	0	1	NBC	3 Hr Trek
		Ainokneri	199	258	Amanab HC	202	36	101	18.11.17	1	0	0	0	0	NBC	3 Hr Trek
		Moakneri	266	271	Amanab HC	268	45	133	18.11.17	1	1	0	0	0	NBC	2 Hr Trek
		Naineri 1&2	434	483	Amanab HC	211	42	106	18.11.17	1	0	0	0	0	NBC	1.5 Hr Trek
10	WAMURU		846	991		987	140	498		5	0	0	0	14		
		Bipan	146	220	Amanab HC	239	38	124	10.11.17	1	0	0	0	0	NBC	Road
		Wamuru#1			Amanab HC	201	39	100	10.11.17	1	0	0	0	0	NBC	Road
		Wamuru#2			Amanab HC	320	18	160	10.11.17	1	0	0	0	14	NBC	New
		Wamuru#3	549	613	Amanab HC	94	24	47	10.11.17	1	0	0	0	0	NBC	New
		Wogineri	152	158	Amanab HC	133	21	67	10.11.17	1	0	0	0	0	NBC	Road
11	AHERI		936	778		786	151	399		5	5	0	0	0		
		Aheri	181	175	Amanab HC	165	28	84	21.11.17	1	1	0	0	0	NBC	Road
		Bananag	97	70	Amanab HC	92	11	46	21.11.17	1	1	0	0	0	NBC	20 Minute Trek
		Ibagum	308	255	Amanab HC	246	46	123	21.11.17	1	1	0	0	0	NBC	Road
		Sraminag	160	86	Amanab HC	88	17	44	18.11.17	1	1	0	0	0	NBC	1 Hr Trek
		Mowaineri	190	192	Amanab HC	195	49	102	13.11.17	1	1	0	0	0	NBC	1 Hr Trek
12	AMANAB STATION		331	306		302	54	154		1	1	0	0	15		
		Amanab Dist.H/Q	331	306	Amanab HC	302	54	154	14.11.17	1	1	0	0	15	NBC	Road
13	IVEIG		899	965		1,003	186	501		4	2	0	0	54		
		Aurump	250	257	Amanab HC	280	50	141	18.11.17	1	0	0	0	21	NBC	Road
		Ifigeri	107	111	Amanab HC	109	21	55	18.11.17	1	1	0	0	0	NBC	Road
		Iframinag	237	235	Amanab HC	272	52	131	18.11.17	1	0	0	0	0	NBC	2 Hr Trek
		Iveig	305	362	Amanab HC	342	63	174	18.11.17	1	1	0	0	33	NBC	Road
14	AKRAMINAG		929	1,264		1,281	207	640		6	3	0	0	55		
		Akraminag	265	278	Amanab HC	279	50	133	15.11.17	1	1	0	0	0	NBC	Road/1.5 Hr Trek
		Yaftimbi	144	277	Amanab HC	332	50	168	10.11.17	1	0	0	0	38	NBC	Road
		Nabaineri	171	137	Amanab HC	108	20	54	21.11.17	1	1	0	0	0	NBC	Road/3-4 Hr Trek
		Yumor 1	128	138	Amanab HC	160	27	80	18.11.17	1	1	0	0	2	NBC	Road/1 Hr Trek
		Yumor 2	50	75	Amanab HC	47	7	23	18.11.17	1	0	0	0	0	NBC	Road/2 Hr Trek
		Baibai (Paipai)	171	358	Amanab HC	355	53	182	11.11.17	1	0	0	0	15	NBC	Road
15	MASINERI -NAI No 2		1,094	1,294		1,153	230	592		5	5	0	0	10		
		Maiseneri	128	115	Amanab HC	116	29	59	18.11.17	1	1	0	0	0	NBC	Road

LLG	WARD	VILLAGE	Estimated 2017 Data Based On 2000 Census	Estimated 2017 Data Based On 2014 Data	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Villages	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
		Mouri	110	142	Amanab HC	159	31	81	16.11.17	1	1	0	0	0	NBC	Road
		Nai 2	258	268	Amanab HC	275	45	139	16.11.17	1	1	0	0	3	NBC	Road
		Owaniak	236	270	Amanab HC	286	44	141	19.11.17	1	1	0	0	6	NBC	Road
		Wofneri	362	499	Amanab HC	317	81	172	19.11.17	1	1	0	0	1	NBC	Road
16	UTAI		665	828		1,144	167	468		4	0	0	0	50		
		Aiamina	162	191	Utai HC	300	49	119	17.11.17	1	0	0	0	49	NBC	Road
		Ekas	162	228	Utai HC	337	50	136	12.11.17	1	0	0	0	0	NBC	Road
		Wurubai	107	112	Utai HC	228	36	97	18.11.17	1	0	0	0	1	NBC	Road
		Utai	234	297	Utai HC	279	32	116	17.11.17	1	0	0	0	0	NBC	Road
17	GURIASO		1,073	1,078		1,152	184	477		5	0	0	0	46		
		Mofo	166	149	Guriaso HC	155	18	64	18.11.17	1	0	0	0	17	NBC	Road
		Guriaso	238	208	Guriaso HC	289	48	124	18.11.17	1	0	0	0	1	NBC	Road
		Maragin	343	391	Guriaso HC	288	51	118	18.11.17	1	0	0	0	0	NBC	Road
		Yauri	249	219	Guriaso HC	200	27	89	18.11.17	1	0	0	0	25	NBC	Road
		Wagrani	77	110	Guriaso HC	220	40	82	18.11.17	1	0	0	0	3	NBC	Road / Trek
18	KWOMTARI		567	765		878	120	440		4	2	0	0	17		
		Baiberi	138	242	Amanab HC	230	29	115	10.11.17	1	1	0	0	3	NBC	Road
		Kwomtari	127	167	Amanab HC	235	31	119	10.11.17	1	1	0	0	9	NBC	Road
		Mango	112	130	Amanab HC	123	20	61	10.11.17	1	0	0	0	5	NBC	Road
		Yenabi	190	227	Amanab HC	290	40	145	10.11.17	1	0	0	0	0	NBC	Road
BEWANI \ WUTUNG ONEI RURAL			21,365	24,529		26,279	3,993	12,622		68	23	0	0	1,628	65	
1	WUTUNG		1,070	1,321		1,196	162	574		2	2	0	0	152		
		Wutung	980	1,208	Lote HC	1,025	138	492	10.11.17	1	1	0	0	128	Radio San	Road
		Wutung Station	90	112	Lote HC	171	24	82	10.11.17	1	1	0	0	24	Radio San	Road
2	MUSU		443	781		924	146	444		3	2	0	0	22		
		Fichin	184	442	Lote HC	364	60	175	11.11.17	1	1	0	0	0	Radio San	Road
		Mushu	259	339	Lote HC	352	52	169	11.11.17	1	1	0	0	0	Radio San	Road
		Border Post Camp		NEW	Lote HC	208	34	100	11.11.17	1	0	0	0	22	Radio San	Road
3	YAUKONO		415	478		746	109	358		2	0	0	0	82		
		Yaukono	415	478	Lote HC	392	59	188	11.11.17	1	0	0	0	44	Radio San	Road
		Didi Camp		NEW	Lote HC	354	50	170	11.11.17	1	0	0	0	38	Radio San	Road
4	YAKO		695	940		1,218	188	584		2	2	0	0	162		
		Yako	661	557	Lote HC	991	147	475	10.11.17	1	1	0	0	131	Radio San	Road
		Baro	34	384	Lote HC	227	41	109	10.11.17	1	1	0	0	31	Radio San	Road
5	WARIMO		1,503	1,366		1,244	200	597		1	1	0	0	190		
		Warimo	1,503	1,366	Lote HC	1,244	200	597	10.11.17	1	1	0	0	190	Radio San	Road
6	VANIMO (LIDO)		2,408	2,204		2,370	318	1,132		3	2	0	0	275		
		Vanimo (Lido)	1,762	1,533	Lote HC	1,922	242	922	14.11.17	1	1	0	0	215	Radio San	Road
		Ilolo	308	321	Lote HC					1						Included under Lido
		Karanas Pit	339	350	Lote HC	448	76	210	14.11.17	1	1	0	0	60	Radio San	Road
7	NINGRA		1,188	909		1,543	236	702		4	4	0	0	38		
		Ningra	216	329	Dabu HC	640	100	302	17.11.17	1	1	0	0			Road/Trek
		Wara Black	424	398	Dabu HC	339	59	164	15.11.17	1	1	0	0		FM / Radio San	Road/30 Min Trek
		Wara Bris no.1	471	182	Dabu HC	265	46	127	17.11.17	1	1	0	0	38		Road
		vfp Pual Base camp	77	0	Dabu HC	299	31	109	15.11.17	1	1	0	0		FM / Radio San	Road
8	RAWO		409	392		374	80	186		1	1	0	0	16		
		Rawo	409	392	Dabu HC	374	80	186	03.11.17	1	1	0	0	16	Radio San	Boat
9	POKO		361	401		396	65	190		1	1	0	0	23		
		Poko	361	401	Dabu HC	396	65	190	03.11.17	1	1	0	0	23	Radio San	Boat
10	NOWAKE		533	476		370	49	185		2	2	0	0	13		
		Nowake	265	285	Laitre HC	286	37	143	31.10.17	1	1	0	0	7	Radio San	Boat
		8 Talis	268	191	Laitre HC	84	12	42	31.10.17	1	1	0	0	6	Radio San	Boat
11	LAITRE		974	1,139		1,131	208	564		3	3	0	0	146		
		Isi	439	404	Laitre HC	383	58	191	31.10.17	1	1	0	0	113	Radio San	Boat
		Pino	481	547	Laitre HC	647	132	323	31.10.17	1	1	0	0	29	Radio San	Boat
		Laitre Cm	54	187	Laitre HC	101	18	50	31.10.17	1	1	0	0	4	Radio San	Boat
12	PUARE		315	562		616	108	307		2	2	0	0	11		
		Puare	315	425	Laitre HC	446	79	222	01.11.17	1	1	0	0	0	Radio San	Boat
		Pabile		137	Laitre HC	170	29	85	31.10.17	1	1	0	0	11	Radio San	Boat
13	ONEI		280	391		320	50	160		1	1	0	0	23		
		Onei	280	391	Laitre HC	320	50	160	01.11.17	1	1	0	0	23	Radio San	Boat
14	OSOL		751	828		768	112	369		4	0	0	0	47		
		Aiyawou	246	232	Bewani HC	185	26	89	12.11.17	1	0	0	0	5	Radio San	Road
		Elau	121	268	Bewani HC	127	18	61	12.11.17	1	0	0	0	7	Radio San	Road
		Osol	228	0	Bewani HC	172	23	83	12.11.17	1	0	0	0	17	Radio San	Road
		Sosi	156	328	Bewani HC	284	45	136	12.11.17	1	0	0	0	18	Radio San	Road
15	KRISA		689	989		884	161	425		2	0	0	0	62		
		Aule	69	0	Bewani HC	74	13	36	12.11.17	1	0	0	0	5	Radio San	Road
		Krisa	620	989	Dabu HC	810	148	389	19.11.17	1	0	0	0	57	Radio San	Road
16	OSSIMA		1,747	1,660		1,890	260	899		6	0	0	0	3		
		Airu	287	264	Ossima HC	356	46	170	16.11.17	1	0	0	0	3	Radio San	Road
		Awol	255	74	Ossima HC	195	30	94	16.11.17	1	0	0	0		FM / Radio San	Road
		Omula	342	392	Ossima HC	474	61	225	16.11.17	1	0	0	0	0	Radio San	Road/10 Min Walk
		Ossima	433	373	Ossima HC	351	50	164	16.11.17	1	0	0	0		FM / Radio San	Road
		Omoi	340	353	Ossima HC	340	50	163	16.11.17	1	0	0	0		FM / Radio San	Road/15 Min Walk
		Ossima Om	91	205	Ossima HC	174	23	83	16.11.17	1	0	0	0		FM / Radio San	Road
17	KILIPAU		1,119	1,314		1,248	214	635		3	0	0	0	153		
		Kilipau	459	750	Bewani HC	540	82	295	12.11.17	1	0	0	0	64	Radio San	Road
		Kiliwes	421	564	Bewani HC	413	82	198	12.11.17	1	0	0	0	69	Radio San	Road
		vfp Blk Base Camp	238	0	Bewani HC	295	50	142	12.11.17	1	0	0	0	20	Radio San	Road
18	ILUP		1,214	850		1,431	183	686		4	0	0	0	83		
		Ilup	581	342	Bewani HC	596	50	286	13.11.17	1	0	0	0	48	Radio San	Road/15 Min Walk
		Isi 1	193	508	Bewani HC	176	36	84	13.11.17	1	0	0	0	13	Radio San	Road
		Isi 2	440	0	Bewani HC	292	50	140	13.11.17	1	0	0	0	16	Radio San	Road/20 Min Walk
		Isi Daro		NEW	Bewani HC	367	47	176	13.11.17	1	0	0	0	6	Radio Sandaun	

LLG	WARD	VILLAGE	Estimated 2017 Data Based On 2000 Census	Estimated 2017 Data Based On 2014 Data	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Villages	Digicel	Emobile	Citifon	Houses With Radios	Radio Networks	Comment
19	AMOI		590	568		506	94	243		2	0	0	0	81		
		Amoi	402	460	Bewani HC	406	79	195	13.11.17	1	0	0	0	66	Radio San	Road
		Bewani St	188	108	Bewani HC	100	15	48	13.11.17	1	0	0	0	15	Radio San	Road
20	SOMBOI		508	597		625	128	299		2	0	0	0	0		
		Nambes	144	151	Bewani HC	149	34	71	13.11.17	1	0	0	0	FM / Radio San		Road
		Somboi	364	446	Bewani HC	476	94	228	13.11.17	1	0	0	0	FM / Radio San		Road
21	ITULY		667	721		681	91	323		2	0	0	0	18		
		Apwambo	259	418	Bewani HC	416	54	196	13.11.17	1	0	0	0	FM / Radio San		Road
		Idoli	408	303	Bewani HC	265	37	127	13.11.17	1	0	0	0	18	Radio San	Road
22	SKOTIAHO		477	1,114		1,005	126	480		3	0	0	0	27		
		Skotiaho	371	490	Bewani HC	504	50	242	13.11.17	1	0	0	0	16	Radio San	Road
		Tapos	106	169	Bewani HC	150	26	70	13.11.17	1	0	0	0	FM / Radio San		Road
		Skotiaho Base Camp		454	Bewani HC	351	50	168	13.11.17	1	0	0	0	11	Radio San	Road
23	AINBAI		342	518		549	64	260		3	0	0	0	0		
		Ainbai	196	377	Bewani HC	345	42	162	13.11.17	1	0	0	0	FM / Radio San		Road
		Elis 1	103	141	Bewani HC	204	22	98	13.11.17	1	0	0	0	FM / Radio San		Road/I Hr Trek
		Elis 2	43	0	Bewani HC					1				FM / Radio San		Included under Elis1 (Road)
24	SUMUMINI		745	1,429		1,595	221	756		4	0	0	0	1		
		Waramaiyu	225	165	Bewani HC	225	29	108	13.11.17	1	0	0	0	1	Radio San	Road
		Sumumini	328	771	Dabu HC	983	131	465	14.11.17	1	0	0	0	FM / Radio San		Road
		You'o	191	314	Dabu HC	267	38	125	14.11.17	1	0	0	0	0	Radio San	Road/3-4 Hr Trek
		Sumumini Transit Camp		180	Dabu HC	120	23	58	15.11.17	1	0	0	0	0	Radio San	Road
25	IMBOI 2		1,198	1,559		1,553	251	745		4	0	0	0	0		
		Imbio 1	475	660	Dabu HC	588	100	282	15.11.17	1	0	0	0	FM / Radio San		Road
		Imbio 2	318	501	Dabu HC	544	90	261	15.11.17	1	0	0	0	FM / Radio San		Road
		Samararu	243	148	Dabu HC	170	28	82		1				FM / Radio San		Road/30 Min Trek
		Vnmo frst.blk/B-cp	162	250	Dabu HC	251	33	120	15.11.17	1	0	0	0	FM / Radio San		Road
26	IMBRINIS		580	807		945	150	446		1	0	0	0	0		
		Imbrinis	580	807	Dabu HC	945	150	446	14.11.17	1	0	0	0	FM / Radio San		Road
27	IMBRINIS		144	214		151	19	73		1	0	0	0	0		
		Seme	144	214	Dabu HC	151	19	73	14.11.17	1	0	0	0	FM / Radio San		Road
				0												
GREEN RIVER RURAL			16,025	17,922		18,137	2,891	8,899		70	14	0	0	28	50	
1	ABARU		1,004	533		734	119	376		3	3	0	0	1		
		Abaru	333	264	Green River HC	289	49	145	15.11.17	1	1	0	0	0	BC Sandau	Road
		Green River S/Dist.	166	120	Green River HC	329	49	163	15.11.17	1	1	0	0	1	BC Sandau	Road
		Yuri Sett.	505	149	Green River HC	116	21	68	15.11.17	1	1	0	0	0	BC Sandau	Road
2	DIORU		456	603		462	113	302		2	2	0	0	2		
		Dioru	219	246	Green River HC	231	43	115	15.11.17	1	1	0	0	0	BC Sandau	Road
		Ibeiyier	237	356	Green River HC	231	70	187	15.11.17	1	1	0	0	2	BC Sandau	Road
3	HOGRU		484	446		428	79	214		2	0	0	0	2		
		Anauk (Hogru no.2)	181	157	Stone Pass	161	31	81	11.11.17	1	0	0	0	1	WS FM	2-3 Hr Trek
		Hogru (Yasisie)	303	289	Stone Pass	267	48	133	10.11.17	1	0	0	0	1	WS FM	30 Min Trek
4	RAWEI		359	464		464	71	232		3	0	0	0	0		
		Auya (Wapuku)	130	166	Stone Pass	178	28	89	09.11.17	1	0	0	0	0	WS FM	Road/Boat/Trek
		Busa	113	160	Stone Pass	156	25	78	10.11.17	1	0	0	0	0	WS FM	Road/Boat/Trek
		Rawei	116	138	Stone Pass	130	18	65	10.11.17	1	0	0	0	0	WS FM	Road/Boat/Trek
5	NAGATIMAN		424	474		485	64	243		2	0	0	0	0		
		Nagatiman	193	220	Stone Pass	233	32	117	11.11.17	1	0	0	0	0	WS FM	Road/Boat
		Tila (Weiku)	231	254	Stone Pass	252	32	126	10.11.17	1	0	0	0	0	WS FM	Road/Boat
6	DILA		431	537		564	80	282		2	0	0	0	1		
		Dila	180	188	Stone Pass	220	36	110	10.11.17	1	0	0	0	1	WS FM	Road/Boat
		Hera	252	349	Stone Pass	344	44	172	10.11.17	1	0	0	0	0	WS FM	Road/Boat
7	MORKEINI		224	281		387	65	194		3	0	0	0	0		
		Karboni	59	94	Stone Pass	118	18	59	10.11.17	1	0	0	0	0	WS FM	Road/Boat
		Morkeini	85	110	Stone Pass	129	24	65	10.11.17	1	0	0	0	0	WS FM	Road/Boat
		Tere	79	77	Stone Pass	140	23	70	10.11.17	1	0	0	0	0	WS FM	Road/Boat
8	WAGU		493	567		581	82	283		2	0	0	0	0		
		Iwau	84	123	Stone Pass	110	25	56	10.11.17	1	0	0	0	0	WS FM	Road/Boat
		Wagu	409	443	Stone Pass	471	57	227	10.11.17	1	0	0	0	0	WS FM	Road/Boat
9	BEIMAP		511	704		684	93	335		2	0	0	0	13		
		Beimap	213	280	Stone Pass	243	34	121	10.11.17	1	0	0	0	13	WS FM	Road/Boat
		Senou	297	424	Stone Pass	441	59	214	10.11.17	1	0	0	0	0	WS FM	Road/Boat
10	SEIAWI		244	391		392	57	197		1	0	0	0	0		
		Seiawi	244	391	Stone Pass	392	57	197	10.11.17	1	0	0	0	0	WS FM	Road/Boat/2-3 Hr Trek
11	AMTO		449	557		525	64	263		2	0	0	0	0		
		Amto 1	281	410	Stone Pass	338	41	169	09.11.17	1	0	0	0	0	WS FM	Road/Boat/2 Hr Trek
		Amto 2	168	147	Stone Pass	187	23	94	10.11.17	1	0	0	0	0	WS FM	Road/Boat/2 Hr Trek
12	BISIABRU		294	390		460	61	216		1	0	0	0	0		
		Bisiabru	294	390	Dio River	460	61	216	5-6.11.17	1	0	0	0	0	No	Road/Boat
13	IDAM 1		813	997		991	152	463		1	0	0	0	0		
		Idam 1	813	997	Dio River	991	152	463	5-6.11.17	1	0	0	0	0	No	Road/Boat/Trek
14	IDAM 2		705	872		724	125	340		3	0	0	0	0		
		Idam 2	536	652	Dio River	588	95	278	5-6.11.17	1	0	0	0	0	No	Road/Boat/Trek
		Wokomo 1	35	82	Dio River	48	11	22	5-6.11.17	1	0	0	0	0	No	Road/Boat/Trek
		Wokomo 2	134	138	Dio River	88	19	40	5-6.11.17	1	0	0	0	0	No	Road/Boat/Trek
15	HUFI		297	317		306	50	138		1	0	0	0	0		
		Hufi	297	317	Dio River	306	50	138	5-6.11.17	1	0	0	0	0	No	Road/Boat
16	BIAKA 1		252	315		329	54	155		2	0	0	0	0		
		Biaka 1	100	132	Dio River	130	19	61	5-6.11.17	1	0	0	0	0	No	Road/Boat
		Biaka 2	152	183	Dio River	199	35	94	5-6.11.17	1	0	0	0	0	No	Road/Boat
17	KASEIRU		365	403		423	57	199		1	0	0	0	0		
		Kasieru	365	403	Dio River	423	57	199	5-6.11.17	1	0	0	0	0	No	Road/Boat
18	SOKMAYON		380	388		391	52	185		1	0	0	0	0		
		Sokmayon (Isu)	380	388	Dio River	391	52	185	5-6.11.17	1	0	0	0	0	No	Road/Boat

LLG	WARD	VILLAGE	Estimated 2017 Data Based On 2000 Census	Estimated 2017 Data Based On 2014 Data	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Villages	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
19	KOBRARU		222	271		286	46	134		1	0	0	0	0		
		Kobraru	222	271	Dio River	286	46	134	5-6.11.17	1	0	0	0	0	No	Road/Boat
20	YABRU		952	1,042		1,069	153	499		2	1	0	0	0		
		Yabru no.1	365	524	Dio River	669	95	315	5-6.11.17	1	1	0	0	0	Yes	Digicel coverage at one edge of the village
		Yabru no.2	587	518	Dio River	400	58	184	5-6.11.17	1	0	0	0	0	No	Road/Boat
21	BUNA		297	360		378	62	179		1	1	0	0	0		
		Buna	297	360	Dio River	378	62	179	6-7.11.17	1	1	0	0	0	No	Digicel coverage on one raised bank across the Sepik River
22	MAHNEI		580	709		696	112	349		3	3	0	0	2		
		Baiwai	222	267	Stone Pass	251	41	126	10.11.17	1	1	0	0	2	WS FM	Road/Boat
		Mahanei	227	222	Stone Pass	185	29	93	10.11.17	1	1	0	0	0	WS FM	Road/Boat
		Kiboupur	131	220	Stone Pass	260	42	130	10.11.17	1	1	0	0	0	WS FM	Road/Boat
23	MUKUASI		498	534		616	96	291		2	0	0	0	0		
		Simaiye	287	324	Dio River	276	46	129	7-8.11.17	1	0	0	0	0	No	Road/Boat
		Island Musu	211	210	Dio River	340	50	162	7-8.11.17	1	0	0	0	0	No	Road/Boat
24	BIFRO		509	556		572	85	277		1	0	0	0	0		
		Bifro	509	556	Stone Pass	572	85	277	09.11.17	1	0	0	0	0	WS FM	Road/Boat
25	BAIO		206	441		398	61	198		1	0	0	0	0		
		Baio	206	441	Stone Pass	398	61	198	09.11.17	1	0	0	0	0	WS FM	Road/Boat
26	YIBRU		568	657		670	116	331		2	0	0	0	2		
		Yibru	246	241	Green River HC	282	44	138	14.11.17	1	0	0	0	2	BC Sandau	Road
		Bini	322	416	Green River HC	388	72	193	14.11.17	1	0	0	0	0	BC Sandau	Road
27	MINIABRU		514	581		592	94	292		3	1	0	0	0		
		Miniabru	153	127	Green River HC	345	55	171	14.11.17	1	0	0	0	0		Boat/1 Hr Trek
		Simia	237	270	Green River HC	247	39	121	14.11.17	1	1	0	0	0		Boat/1 Hr Trek
		Prek	124	183	Green River HC					1						Non Existant now. Included under Miniabru
28	AUIYA 1		327	375		310	55	149		3	0	0	0	0		
		Auiya 1	69	81	Green River HC	58	12	28	13.11.17	1	0	0	0	0		Road/30 Min Trek
		Auiya 2	172	165	Green River HC	125	20	59	13.11.17	1	0	0	0	0		Road/30 Min Trek
		Usari	85	130	Green River HC	127	23	62	13.11.17	1	0	0	0	0		Road/30 Min Trek
29	KAMBRIAP		526	739		654	111	322		2	0	0	0	0		
		Trowari	246	309	Green River HC	224	39	105	13.11.17	1	0	0	0	0		Road/Trek
		Kambriap	280	429	Green River HC	430	72	217	13.11.17	1	0	0	0	0		Road/Trek
30	FONGINUM		450	230		380	68	178		2	0	0	0	0		
		Forginum	190	70	Green River HC	203	36	95	13.11.17	1	0	0	0	0		Road/Boat
		Panagan	261	160	Green River HC	177	32	83	13.11.17	1	0	0	0	0		Road/Boat
31	IURI 1		247	162		177	29	84		2	0	0	0	0		
		Iuri 1	110	77	Green River HC	107	18	50	14.11.17	1	0	0	0	0		Road/Boat
		Iuri 2	137	85	Green River HC	70	11	34	14.11.17	1	0	0	0	0		Road/Boat
32	TINGIRAPU		205	170		157	28	74		2	0	0	0	0		
		Mongu	72	93	Green River HC	72	15	34	15.11.17	1	0	0	0	0		Road/Boat
		Tingirapu	132	77	Green River HC	85	13	40	15.11.17	1	0	0	0	0		Road/Boat/1 Hr Trek
33	AMINI		293	364		393	61	195		1	1	0	0	4		
		Amini	293	364	Green River HC	393	61	195	15.11.17	1	1	0	0	4	BC Sandau	Road
34	SAMUNAI		471	334		365	62	182		2	2	0	0	1		
		Samunai	300	276	Green River HC	288	49	141	15.11.17	1	1	0	0	1	BC Sandau	Road
		Green river H/Sch	171	59	Green River HC	77	13	41	15.11.17	1	1	0	0	0	BC Sandau	Road
35	MIARFAI		237	279		287	56	147		2	0	0	0	0		
		Akrani	96	160	Green River HC	28	6	14	13.11.17	1	0	0	0	0		Road/1 Hr Trek
		Miarfai	141	119	Green River HC	259	50	133	13.11.17	1	0	0	0	0		Road/1 Hr Trek
36	BIAKA		736	881		807	158	401		4	0	0	0	0		
		Biaka	297	352	Green River HC	321	60	161	14.11.17	1	0	0	0	0		Road
		Konabasi	286	358	Green River HC	342	65	168	14.11.17	1	0	0	0	0		Road
		Dauli	84	76	Green River HC	94	20	46	14.11.17	1	0	0	0	0		Road
		Ikasi	69	95	Green River HC	50	13	26	14.11.17	1	0	0	0	0		Road
VANIMO URBAN			14,394	20,292		21,006	3,338	10,106		26	26	6	0	25	26	
1	VANIMO TOWN		14,394	20,292		21,006	3,338	10,106		26	26	6	0	25		
		Top Tower	1,263	1,046	PHO	956	143	454	13.11.17	1	1	0	0	1	adio Sanda	Ward 1
		Wedesco	851	725	PHO	903	151	430	13.11.17	1	1	0	0	1	adio Sanda	Ward 3
		Works Dept	545	692	PHO	835	128	394	12.11.17	1	1	0	0	1	adio Sanda	Ward 4
		Central Town	311	325	PHO	208	34	101	13.11.17	1	1	0	0	0	adio Sanda	Ward 3
		Dali	389	599	PHO	486	69	231	13.11.17	1	1	0	0	1	adio Sanda	Ward 2
		Hausik	699	264	PHO	262	84	156	13.11.17	1	1	1	0	1	adio Sanda	Ward 2
		CIS	174	137	PHO	221	36	108	13.11.17	1	1	0	0	1	adio Sanda	Ward 2
		Palai Camp	340	425	PHO	474	88	241	13.11.17	1	1	0	0	1	adio Sanda	Ward 3
		DCA Sett.	127	391	PHO	524	86	250	10.11.17	1	1	0	0	1	adio Sanda	Ward 5
		CIS Point	212	294	PHO	85	12	40	10.11.17	1	1	0	0	1	adio Sanda	Ward 2
		Wedesco Sett.	746	0	PHO											Non Existant
		Wesan Sett.	998	1,359	PHO	1,036	179	491	12.11.17	1	1	0	0	1	adio Sanda	Ward 4
		Dasi Sett.	1,025	813	PHO	1,274	188	611	12.11.17	1	1	0	0	1	adio Sanda	Ward 4
		Pewi Sett.	397	865	PHO	1,184	151	550	10.11.17	1	1	0	0	1	adio Sanda	Ward 5
		Transmeter	690	1,652	PHO	1,734	295	821	10.11.17	1	1	0	0	1	adio Sanda	Ward 5
		Forestry Sawmill	714	1,845	PHO	1,557	266	740	10.11.17	1	1	1	0	1	adio Sanda	Ward 5
		Salame 1	200	648	PHO	964	144	460	09.11.17	1	1	0	0	1	adio Sanda	Ward 6
		Wusipi	1,482	1,744	PHO	2,199	317	1,066	09.11.17	1	1	1	0	1	adio Sanda	Ward 7
		Warastone	1,328	1,463	PHO	1,468	239	713	09.11.17	1	1	0	0	1	adio Sanda	Ward 6
		Wara kongkong 1	885	1,401	PHO	1,144	173	555	12.11.17	1	1	0	0	1	adio Sanda	Ward 4
		Wara kongkong 2	269	628	PHO	842	115	401	12.11.17	1	1	0	0	1	adio Sanda	Ward 4
		Salame 2	37	368	PHO	357	50	172	09.11.17	1	1	1	0	1	adio Sanda	Ward 6
		Don Bosco H/Sch	21	502	PHO	117	25	59	08.11.17	1	1	1	0	1	adio Sanda	Ward 7
		Krisa Sett.	240	630	PHO	487	89	241	08.11.17	1	1	0	0	1	adio Sanda	Ward 7
		Forestry	155	187	PHO	271	39	131	08.11.17	1	1	1	0	1	adio Sanda	Ward 7
		Karonas Vnm H/sch	297	142	PHO	143	28	71	08.11.17	1	1	0	0	1	adio Sanda	Ward 7

LLG	WARD	VILLAGE	Estimated 2017 Data Based On 2000 Census	Estimated 2017 Data Based On 2014 Data	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Villages	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
		Banana Camp		1,147	PHO	1,275	209	619	10.11.17	1	1	0	0	1	Radio Sanda	Ward 5
WALSA RURAL			8,823	11,076		10,400	1,879	4,943		44	7	0	0	0	0	
1	DAUNDA		849	1,088		1,006	187	492		4	4	0	0	0		
		Daunda	249	281	Imonda HC	292	47	140	12.11.17	1	1	0	0	0		Road
		Pos	365	342	Imonda HC	301	56	148	12.11.17	1	1	0	0	0		1 Hr Trek
		Mol	216	295	Imonda HC	340	67	167	12.11.17	1	1	0	0	0		1 Hr Trek
		Imonda Govt.St	19	170	Imonda HC	73	17	37	12.11.17	1	1	0	0	0		Road
2	SMOCK		604	844		855	138	409		3	0	0	0	0		
		Watape 2	137	232	Imonda HC	261	41	123	13.11.17	1	0	0	0	0		Road
		Smock	241	312	Imonda HC	318	47	152	13.11.17	1	0	0	0	0		Road
		Watape 1	225	301	Imonda HC	276	50	134	13.11.17	1	0	0	0	0		Road
3	NAMOLA		558	608		592	96	277		2	0	0	0	0		
		Machendi	196	218	Imonda HC	221	37	106	13.11.17	1	0	0	0	0		Road/2hrs by track
		Namola	362	390	Imonda HC	371	59	171	13.11.17	1	0	0	0	0		Road/3hrs by track
4	DAUNCHENDI		500	534		551	86	265		2	0	0	0	0		
		Dauchendi	346	342	Wasengla HC	345	56	167	22.11.17	1	0	0	0	0		Road/trek
		Omol	155	192	Wasengla HC	206	30	98	22.11.17	1	0	0	0	0		Road/trek
5	EPMI		796	698		764	115	374		3	3	0	0	0		
		Epmi	330	280	Wasengla HC	293	39	141	22.11.17	1	1	0	0	0		Road
		Netwond 1	203	203	Wasengla HC	230	33	111	22.11.17	1	1	0	0	0		Road
		Netwond 2	263	216	Wasengla HC	241	43	122	22.11.17	1	1	0	0	0		Road
6	DOPONENDI		768	820		576	112	289		3	0	0	0	0		
		Dovnendi	459	514	Wasengla HC	92	24	48	22.11.17	1	0	0	0	0		Road
		Tokenendi	236	234	Wasengla HC	235	38	114	22.11.17	1	0	0	0	0		Road
		Wasengla	74	72	Wasengla HC	249	50	127	22.11.17	1	0	0	0	0		Road
7	WAINDA		283	257		163	23	78		3	0	0	0	0		
		Ming	25	0	Wasengla HC					1						Non Existant
		Um	75	0	Wasengla HC					1						Non Existant
		Wainda	183	257	Wasengla HC	163	23	78	23.11.17	1	0	0	0	0		Road
8	HOLOSA		608	910		614	93	299		4	0	0	0	0		
		Holosa	209	550	Wasengla HC	208	33	104	23.11.17	1	0	0	0	0		Road/Trek
		Kwek	138	120	Wasengla HC	148	19	71	23.11.17	1	0	0	0	0		Road/Trek
		Sainidi	124	99	Wasengla HC	85	17	42	23.11.17	1	0	0	0	0		Road/Trek
		Swachketjil	137	141	Wasengla HC	173	24	82	23.11.17	1	0	0	0	0		Road/Trek
9	DAUNDI		720	765		684	137	341		5	0	0	0	0		
		Daundi	82	146	Wasengla HC	163	25	78	23.11.17	1	0	0	0	0		Trek
		Pendes	177	0	Wasengla HC	102	22	50	23.11.17	1	0	0	0	0		Trek
		Popan	234	184	Wasengla HC	174	37	92	23.11.17	1	0	0	0	0		Trek
		Swachbaru	149	321	Wasengla HC	121	29	59	23.11.17	1	0	0	0	0		Trek
		Yuhetla	78	113	Wasengla HC	124	24	62	23.11.17	1	0	0	0	0		Trek
10	TAMINA 1		633	557		705	101	341		5	0	0	0	0		
		Fas 2	190	282	Fas 2 AP	318	40	152	10.11.17	1	0	0	0	0		Road
		Nebike	211	114	Fas 2 AP	180	23	87	10.11.17	1	0	0	0	0		Road/Trek
		Tamina 1	135	50	Fas 2 AP	75	14	36	10.11.17	1	0	0	0	0		Road/Trek
		Tamina 2	97	57	Fas 2 AP	89	14	45	10.11.17	1	0	0	0	0		Road/Trek
		Munmei		53	Fas 2 AP	43	10	21	10.11.17	1	0	0	0	0		
11	FAS 1		651	2,279		2,254	424	1,077		6	0	0	0	0		
		Fuger	147	230	Fas 2 AP	233	32	114	11.11.17	1	0	0	0	0		Road
		Fugumui	503	223	Fas 2 AP	252	41	119	11.11.17	1	0	0	0	0		Road
		Kilifas		462	Fas 2 AP	421	62	202	11.11.17	1	0	0	0	0		Road
		Wase		84	Fas 2 AP	70	10	34	11.11.17	1	0	0	0	0		Road
		Maka Base Camp		699	Fas 2 AP	805	186	393	11.11.17	1	0	0	0	0		Road
		Amanab 5/6 Base Camp		581	Fas 2 AP	473	93	215	11.11.17	1	0	0	0	0		Road
12	WAINA		1,017	915		842	197	308		2	0	0	0	0		
		Sowanda	533	605	Imonda HC	565	122	154	11.11.17	1	0	0	0	0		Road/ 1dayTrek
		Waina	369	311	Imonda HC	277	75	154	11.11.17	1	0	0	0	0		Road/ 1 day track
		Wiala	115	0	Imonda HC											Non Existence
13	PUNDA		836	800		794	170	393		2	0	0	0	0		
		Punda	411	368	Imonda HC	367	83	182	11.11.17	1	0	0	0	0		Road/ 6 Hours trek
		Umeda	425	431	Imonda HC	427	87	211	11.11.17	1	0	0	0	0		Road/ 6 Hours trek