

ROTARIANS AGAINST MALARIA



LONG LASTING INSECTICIDAL NET DISTRIBUTION REPORT

Enga Province

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

With Support From NDoH, Global Fund and Against Malaria Foundation

22 April to 4 June 2017



Summary

A survey and distribution of Long Lasting Insecticidal Nets (LLINs) to household level was carried out in the Enga Province 8 February to 5 May 2017.

This is the third time that Enga has received nets and the third time under RAM with Global Fund funding. In Round Three of the Global Fund, distributions were carried out in 2010. This initial distribution was coordinated by the Provincial Health Authority but in 2014 and now in 2017 these distributions of LLINs in Enga were carried out under the coordination of RAM with joint implementation together with the Enga Provincial Health Authority. In the first two distributions, all districts of Enga were given nets, but in 2017, due to funding shortages, only areas below 2000m were covered in nets which means that the whole of Kandep, and parts of Lagaip, Wabag and Kopiam were not covered.

It should also be noted that the nets for the 2017 distribution were funded through a donation of nets from the National Department of Health with the costs of distribution covered by Global Fund. This is also the third province to have a new survey verification process used after being previously tested in East New Britain and Milne Bay. This verification system was initiated by the Against Malaria Foundation who is now funding most of the LLINs for PNG.

Many parts of Enga lie above 2000m which are considered non-malarial and these areas account for 36% of the population of Enga. This programme is therefore covered an estimated target population of 252,878 out of 396,339 people in the province. From the estimated 2017 target population 252,878 (53,554 Kompam, 67,048 Lagaip Porgera, 69,342 Wabag, 62,934 Wapenamanda), the project recorded within this targeted a population 259,877 people (52,597 Kompam, 70,163 Lagaip Porgera, 76,963 Wabag, 60,154 Wapenamanda). To this population were distributed 122,804 LLINs (25,330 Kompam, 32,088 Lagaip Porgera, 36,034 Wabag, 29,352 Wapenamanda) giving an overall ratio of 47.3 LLINs distributed to every 100 people.

A further 848 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 cost of the programme was K418,004.78 Kina resulting in a cost of about 3.40 Kina or US\$1.08 per net delivered which was about 2% under the anticipated overall budget. However, not all areas were completed so the total expenditure should have been more. While most budget line items were under budget, car hire was 20% over, mainly caused by delays in getting nets in Enga on time.



Fig.1 – Getting There – Airplane To Iropino and Trekking In Iropino To Remote Villages.

The programme in Enga went very well in most areas however tribal fights were a huge problem in the Paella and Kompian areas. About 11,100 people were not reached in Paella and about 10,200 people in the Kompian areas. This is particularly critical as all these areas are in the worst affected malaria areas in the country. It is however unlikely that these areas can be done again until the end of the year.

Other than this, it can be said that support given by the provincial health authorities, the various health centres involved in the project and all community members was tremendous. Partners included the Provincial Government Health Services and church health services, particularly the Catholic, Baptist, Lutheran and Four Square Church Health Services. Many others assisted including teachers and head masters, village councillors, village leaders, Village Health Volunteers (VHV), and many others too many to mention who helped the programme in individual or collective ways.

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.

Schedule

This distribution took place in the eighth year in which RAM has been involved in the distribution of nets with Provincial Health Authorities in PNG. The first five years of this programme were referred to as the Round Eight Global Fund Programme and the last two years as the New Funding Model for which RAM has received three years funding for the Global Fund for the period 2015 to 2017.

Survey and distributions were carried out as per the table below. The first operation started in all accessible areas of all districts in Enga except Kandep at the same time. The second phase of the operation covered all the fly in areas of Enga which cover many of the low-lying areas of the province and mostly cover the northern border areas with East Sepik. It is stated by some people that of these border villages actually lie in East Sepik but are often considered Enga due to these villages speaking Engan language. East Sepik also claims these villages but gives them slightly different names but as they also lie on the Enga border, RAM covers all these villages at one time irrespective of whether they lie in East Sepik or Enga.

Table One
General Timetable Of Activities In Enga

District	Survey		Distribution	
	Start	Finish	Start	Finish
Kandep	Not done			
Kompian	26.04.17	30.04.17	09.05.17	17.05.17
Lagaip Porgera	27.04.17	05.05.17	09.05.17	14.05.17
Wabag	24.04.17	30.04.17	09.05.17	22.05.17
Wapenamanda	26.04.17	12.05.17	12.05.17	18.05.17
Kompian Fly In Areas Of Kompian, Wabag and Lagaip Porgera	25.05.17	30.05.17	31.05.17	04.06.17

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 a mandate to work in malaria control in Papua New Guinea and has been working for many years with the National Department of Health (NDOH) and other partners including bilateral agencies such as UNICEF and WHO (World Health Organisation), NGOs and church groups.

RAM's most prominent activity during the early part of its existence has been in the supply of mosquito nets to the both commercial and NGO other partners on a cost recovery basis throughout PNG. In this respect, RAM was also a major partner to the NDOH during the Global Fund Round Three programme in the country. During this programme, RAM procured and delivered Long Lasting Insecticidal Nets (LLINs) to every province (and district where possible) in the country from 2004 to 2008 sufficient to cover 80% of the population. These nets were then delivered to household level by provincial health authorities.

For a variety of reasons, in 2009, the National Department of Health requested RAM to take over the coordination of the distribution of LLINs throughout PNG. Since 2010, RAM has coordinated the procurement and distribution of LLINs to provincial and district level throughout the country. However, for the distribution of nets to household level this has been jointly implemented with provincial, district and church health services. Between 2010 and 2016, RAM has coordinated the distribution of 7.5 million nets to household level and a further 1.1 million nets to pregnant women mothers and other vulnerable groups such as boarding students and inmates or correction centres.

RAM was awarded another three year contract by the Global Fund (known as the New Funding Model (NFM)) which will expire at the end of 2017 with a further contract now expected to cover the period 2018 to 2020. The contract is to continue with the coordination of the distribution of LLINs throughout PNG.



Fig.2 Training Of Volunteers In Kompiam (Left) and Sopas (Right)

For the New Funding Model of 2015 to 2017, Global Fund cut their funding which forced the National Department of Health to stratify the distribution of LLINs in different parts of PNG as there was no longer enough funds to cover all parts of the country. This stratification was based on malaria epidemiology and ease of access to health services. As a result of this PNG was divided into four 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 which have high malaria endemicity and poor access to health continue to have household distributions,

- c) 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 areas will now have nets given to under five children where funds are not available, and
- d) In urban and peri-urban areas such as Port Moresby and Lae which lie in low lying areas where access to health is considered easy, no distribution or perhaps under five distributions will be carried out when funds are in short supply.

Unfortunately, Enga comes completely under Zone a, b and c which means it has areas which lie above 2000m which do not have malaria but also have very low lying endemic areas of malaria. This means that areas in Zone a did not receive nets in this distribution and other areas received at the rate of approximately one net for every two people. Refer to Fig.12 to see the altitudes in Enga and which areas are above 2000m.

However, it should be noted that for 2015 and 2016, many districts in the highlands either did not receive nets if they were high altitude or had under five campaigns, particularly in the areas between 1600 – 2000m though some areas below this altitude were also affected. Funding shortages were even more acute for 2017.

During 2016, RAM has been very fortunate to get further funding from a British NGO called Against Malaria Foundation (AMF). In this agreement, AMF will purchase nets for PNG and the Global Fund will pay for their distribution. This has meant that in 2017, all targeted areas, except for those above 2000m such as in Kandep in Enga Province will receive full household coverage.

One of the conditions of the AMF donation is that RAM would strengthen the way in which surveys are carried out. These new processes are described in the Methodology Section and Enga is the third province where this new system was put into action even though in reality, the nets being used in Enga were donated by the National Department of Health but it was felt better to remain with this improved method of verification.

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

The processes used by RAM include recording all family members by name, age, sex and relationship to household as well as giving each household surveyed a white receipt that confirms that they have been surveyed. One of the new innovative practices now being introduced is that surveys are carried out by village volunteers who before submitting lists for distribution of nets, must hang a summary of all the households they have surveyed in a public place so the villagers can see how many people have been recorded in each household. This is to ensure that everyone has been included and that non-existent people have not been included. This process is further strengthened by 5% of all households in each village being randomly resurveyed to verify that the survey volunteer has done their job properly.

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 distribution of Round Three, nets were allocated at a rate of one net to every 2.5 people. With the programme only receiving 80% of 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 does not happen by collecting all population information first and then allocating the nets based on needs as well as availability

of nets to ensure that all families receive nets throughout any given province. The only scenario where survey and net distribution may be simultaneous is in very remote locations where it is not practical to return 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.



Fig.3 – Training Of Volunteers In Muritaka (Left) and Kompiam (Right)

Methodology

Prior to planning and all implementation, a master list of villages of Enga was drawn up using data from the 2000 Census. Villages in the list are organised by LLG and Ward. In this master list, the estimated population for 2016 for each village is recorded which is estimated from the 2000 Census figures and the estimated annual growth rate for Enga and also compared with previous surveys carried out by RAM in 2010 and 2013. With this data, the project manager of RAM worked together with the Provincial Health Office to create a budget and have a planning outline for the programme throughout the province. Much of the planning was the allocation and transport of nets to each of the health centres involved in the programme.

In terms of all further coordination and planning, the RAM teams worked in close coordination with the Provincial Health Team of Enga. Jointly the main health facilities in each Local Level Government (LLG) areas (whether government or Church Based) were selected from which operations would be carried out. Each health facility identified staff members or non-health volunteers to be involved with the programme and these became the District Health Team (DHT) if health staff or team leaders (if not health staff) responsible for the survey and distribution of nets. Each DHT and team leaders worked in the area in which the health facility was based.

Using the master list of villages, it was possible to group all villages into areas to be covered by each health centre and estimate the number of teams and DHTs needed at each health centre to carry out the work. The RAM project officers were then assigned to specific health centres with whom they would work with to facilitate the household survey and the LLINs distribution in each LLG.

Before any activities take place, RAM officers are expected to work with health staff and other team leaders to make detailed plans of their activities for training, survey, verification and distribution of nets. This 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, 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 one-day training meeting is normally held at each health facility for all DHT members in that area who together carry out a 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 level. RAM officers also have the responsibility to ensure the LLINs operation kept in line with the original micro-plan and 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 a 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 if the work has been carried out correctly.
- 5) For each household surveyed, all family members who normally resided 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 house 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 are 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 are 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.

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 team leaders of the DHTs. This document also provides the projected population per census unit as well as other information which might be useful to the area concerned.

After getting 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.



Fig.4 Distribution In Yengis (Left) And Lapalama (Right)

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. 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 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 with a district code printed on each net e.g. ENG17 for Enga 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 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, that due to the very remote locations found in some LLGs of the province, surveys and distributions took place at more or less the same time in some places. 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 to pre-allocate nets to these areas. 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 Enga Province, all LLINs were delivered to Lae by ship from Vietnam (via Singapore) where they were custom cleared. The nets were transported to Mount Hagen from where they were then sent to Enga. In total seven containers of nets were used to bring nets

to Enga. Of these, one container was transported to Porgera, two to Wabag and two to Wapenamanda. Two of the containers remained in Mount Hagen for the fly in areas, and container was emptied in Mount Hagen as it could not be transported to Enga in the time frame needed by the transport company.

Results

Many parts of Enga lie above 2000m which are considered non-malarial and these areas account for 36% of the population of Enga. This programme is therefore covering an estimated target population of 252,878 out of 396,339 people in the province. From the estimated 2017 target population of 252,878 (53,554 Kompiam, 67,048 Lagaip Porgera, 69,342 Wabag, 62,934 Wapenamanda) people, the project recorded within this targeted a population 259,877 people (52,597 Kompiam, 70,163 Lagaip Porgera, 76,963 Wabag, 60,154 Wapenamanda). To this population were distributed 122,804 LLINs (25,330 Kompiam, 32,088 Lagaip Porgera, 36,034 Wabag, 29,352 Wapenamanda) giving an overall ratio of 47.3 LLINs distributed to every 100 people.

TABLE TWO
Nets Distributed At District Level In Enga

District	Population Of Targeted Areas In 2014	Total Estimated Population 2017	Target Population 2017	Population Surveyed 2017	House Holds Surveyed 2017	Nets Issued 2017	Growth Rate Against 2013 Survey	Nets Distributed Per 100 People
Kandep		59,757	0	Not Done Due To Being At High Altitude				
Kompiam	50,022	60,492	53,554	52,597	10,367	25,330	1.69	48.2
Lagaip Porgera	62,627	128,057	67,048	70,163	10,917	32,088	3.86	45.7
Wabag	64,770	78,099	69,342	76,963	13,872	36,034	5.92	46.8
Wapenamanda	58,784	69,934	62,934	60,154	12,250	29,352	0.77	48.8
Totals	236,203	396,339	252,878	259,877	47,406	122,804	3.24	47.3

Table Two shows a summary of the population and nets distributed by district during this distribution and Table Three shows distribution by LLGs. Table Two also shows the population surveyed in 2013 and from this it can be calculated the annual growth rate of each and LLG. Based on the growth rates recorded, growth from 2013 to 2016 was more than expected so the present growth rate needs to be revised. Table Three clearly shows population movement into Wabag Urban and into Porgera mine areas. The negative growth shown in Kompiam and Paella is only a result of areas not being covered due to tribal fights. More strangely though is the apparent negative growth in Wapenamanda in Wapenamanda Rural while showing an increase of growth in Tsiak Rural. Rural to urban drift can also be noted in the Maramuni Rural of Wabag District. This area has very few services and is cut off from the rest of the province except by plane or long trekking journeys.

A further 848 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 distribution of these nets can be seen in Table Four.

Referring to Table Five it can be seen that the overall cost of the programme was K418,004.78 Kina resulting in a cost of about 3.40 Kina or US\$1.08 per net delivered which was about 2% under the anticipated overall budget. However, not all areas were completed so the total

expenditure should have been more. While most line items were under budget car hire was 20% over mainly caused by delays in getting nets in Enga on time.

TABLE THREE
Nets Distributed At LLG Level In Enga

LLG	District	Population Of Targeted Areas In 2014	Population Surveyed 2017	House Holds Surveyed 2017	Nets Issued 2017	Growth Rate Against 2013 Survey	Nets Distributed Per 100 People
Ambum Rural	Kompam	18,986	23,671	4,758	11,391	7.63	48.1
Kompam Rural	Kompam	25,053	21,765	4,023	10,438	-4.58	48.0
Wapi Yengis Rural	Kompam	5,983	7,161	1,586	3,501	6.17	48.9
Maip Muritaka Rural	L Porgera	21,555	25,986	4,505	12,341	6.43	47.5
Paiela	L Porgera	10,428	753	110	370	-58.36	49.1
Porgera Rural	L Porgera	30,644	43,424	6,302	19,377	12.32	44.6
Wabag Urban	Wabag	6,996	8,278	1,242	3,634	5.77	43.9
Wabag Rural	Wabag	48,301	59,460	10,850	27,816	7.17	46.8
Maramuni Rural	Wabag	9,473	9,225	1,780	4,584	-0.88	49.7
Wapenamanda Rural	Wapenamanda	41,056	40,107	8,146	19,656	-0.78	49.0
Tsak Rural	Wapenamanda	17,728	20,047	4,104	9,696	4.18	48.4
Totals		236,203	259,877	47,406	122,804	3.24	47.3

TABLE FOUR
Nets Donated To Health Centres

District	LLG	HC	Donated
Kompam	Wapi Yengis Rural	Iripino AP	15
Kompam	Wapi Yengis Rural	Yambaitok AP	85
Wabag	Wabag Rural	Sopas	80
Wabag	Maramuni Rural	PHO	516
Wapenamanda	Tsak Rural	Pumakos HC	152
Final			848

TABLE FIVE
Cost Of Programme In Enga

Budget Line	Budget	Actual	Variances	% Variance
Human Resources	K162,830.00	K144,361.95	K18,468.05	88.7
Fuel Cost	K29,988.00	K28,459.27	K1,528.73	94.9
Car Hire Cost	K176,400.00	K213,600.00	-K37,200.00	121.1
Aircraft Hire Cost	K33,000.00	K18,408.75	K14,591.25	55.8
Stationeries/Supplies	K3,000.00	K4,094.47	K3,000.00	136.5
5% Contingency	K20,260.90	K9,080.34	K20,260.90	44.8
Totals	K425,478.90	K418,004.78	K7,474.12	98.2

The project also looked at radio or cell telephone coverage in the different parts of Enga. Referring to Table Six, the data suggests that coverage of both cell networks and radio is generally poor in Enga particularly in places like Lagaip Porgera. This situation does not allow for easy dissemination of health or other types of message to the rural villages of the province particularly in the remote areas of the province.

The support given by the provincial health authorities, the various health centres involved in the project and all community members was tremendous. Partners included the Provincial and Regional Government Health Services and church health services, particularly the Catholic, Baptist, Lutheran and Four Square Church Health Services. Many others assisted including teachers and head masters, village councillors, village leaders, Village Health Volunteers (VHV), and many others too many to mention who helped the programme in individual or collective ways.

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 always 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.

Overall therefore it can be said that the programme in Enga has been successful.

TABLE SIX
Cell and Radio Coverage In Enga

District	Villages	House Holds Surveyed	Digicel	Bmobile	City Phone	Houses with Radios	Villages With Radio Networks
Kompam	133	10,367	121	0	1	1,854	130
Lagaip Porgera	89	10,917	73	41	0	425	49
Wabag	140	13,872	129	19	0	5,459	120
Wapenamanda	113	12,250	111	19	0	3,399	67
Total	475	47,406	434	79	1	11,137	366



Fig.5 – Distributions In Sopas

Observations

- Fig.6 shows the decrease of malaria from 2007 to 2015 in all provinces, Fig. 7 shows the actual malaria incidence in Enga compared with other provinces and Fig.8 shows annual malaria trends from 2012 to 2016. In Enga it can be seen from Fig.6 that malaria decreased from 2007 to 2015 by only 77% which is one of the highest reductions of malaria in the country. This is also reflected in Fig.7 which shows that the incidence of malaria in Enga is only 15 per 1000 people which is the lowest in the country in 2015. Fig. 8 and Fig.9 shows that the incidence of malaria in Enga has been continually low and fell even further

following the LLIN distribution in 2014. Data analysis also from other sources also show that the majority of malaria cases in Enga Highlands are adults which indicates that most malaria cases are imported except for the low lying areas in Kopiam and Lagain Porgera in such areas as Paella.

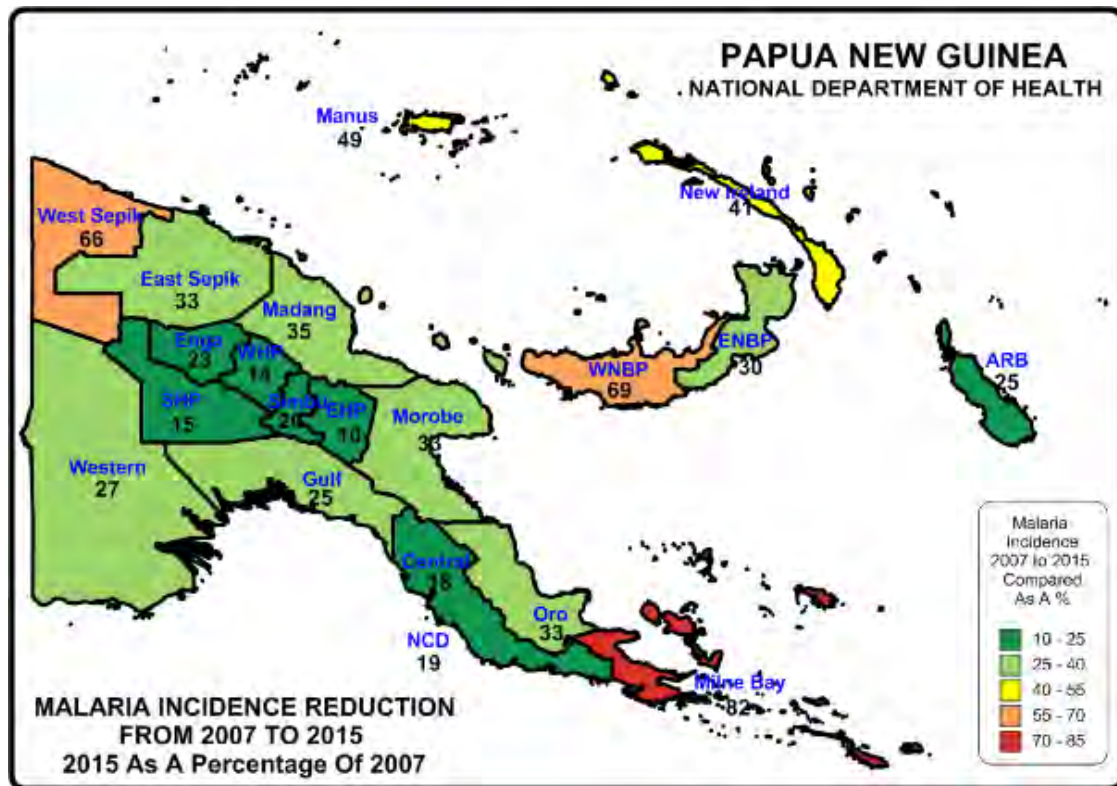


Fig.6 – Relative Reduction Of Malaria In Provinces Of PNG

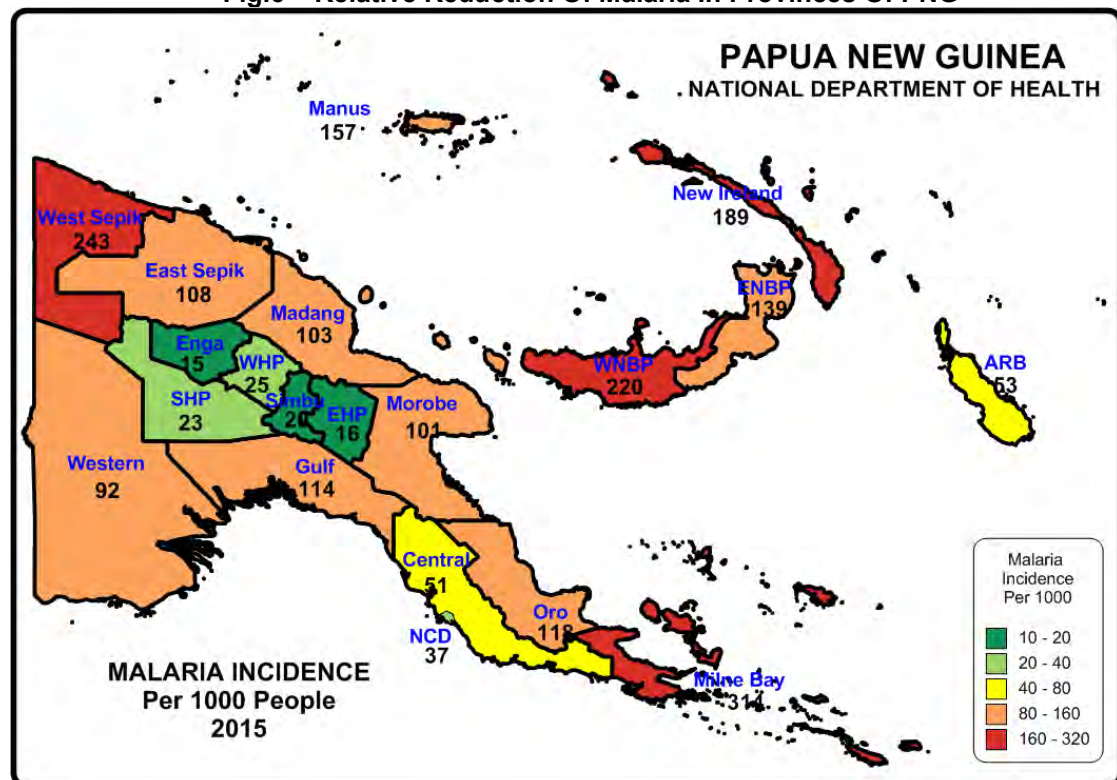


Fig.7 – Reported Malaria Incidence In 2015

- From Fig. 10 it can also be calculated that 1.5% of the population of Enga live below 1200m altitude where malaria can be considered highly endemic and stable. A further 28% of the population live in the zone between 1600-2000 metres where *P. vivax* is the only parasite believed to be found at these altitudes.
- Overall, except in the border low lying areas, malaria should not really be considered a problem in Enga and this further distribution of nets should increase the protection of the population from malaria being reintroduced into the province. Nevertheless, Enga is surrounded by low lying areas, particularly on its northern and western borders where malaria control is extremely difficult due to access issues and tribal fighting as experienced on this recent distribution.
- The major challenge other than tribal fighting to the distribution of nets in Enga as in other provinces in previous years has been the weather and particularly the poor infrastructure in the remoter areas of the province.

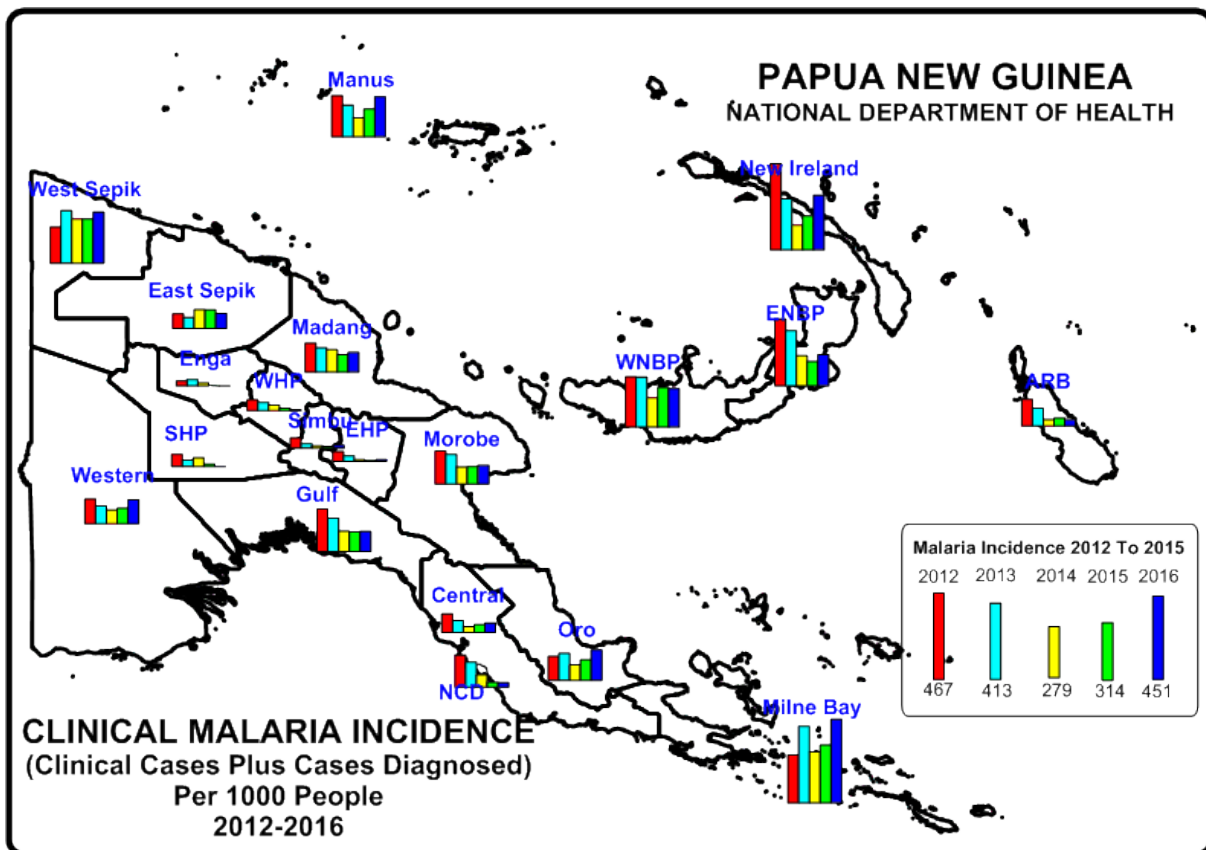


Fig. 8- Reported Malaria Incidence In PNG From 2012 To 2016

- Enga represents also the third province in which the new survey methodologies are being carried out. While some initial problems have been experienced with verification of survey volunteers, in general, it can be said that the new process has been welcomed by RAM officers and villagers alike.
- The very positive aspect of Enga from a RAM perspective was the incredibly good support received by the provincial and health centre staff who assisted to make the project work efficiently and quickly. In terms of budget, the lessons learnt in other provinces allowed a much closer monitoring of the budget in Enga through the decentralising of funding and net allocation. In this respect, each LLG of Enga was treated as a separate financial unit which gave much more accountability. The very positive results of this is that the programme generally worked within budget and only a few nets remained unaccounted for at the end of the programme.
- However, despite all these difficulties, overall the project received positive comments from the provincial health office including those who had been involved in previous distributions

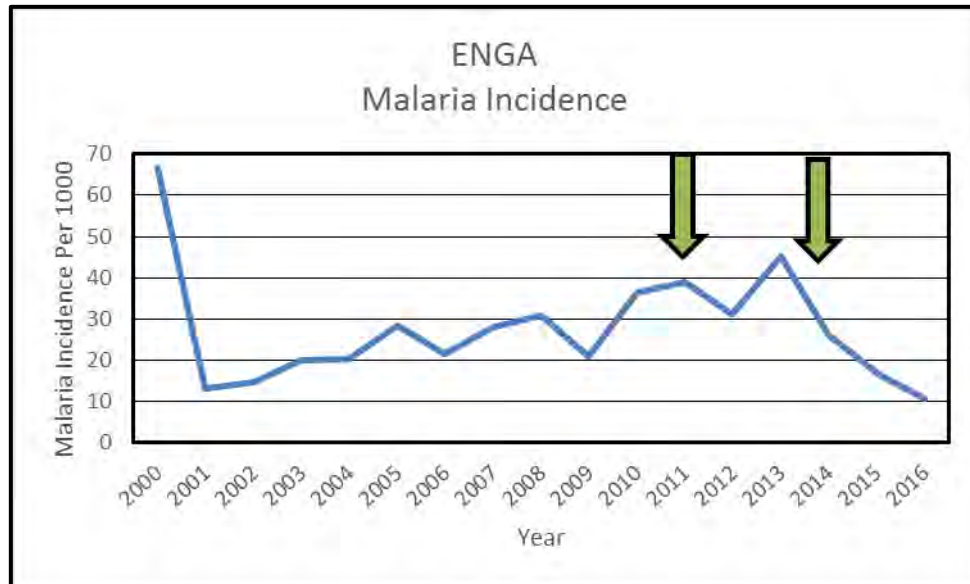
in the province. It was generally felt that the system being advocated by RAM is transparent and fair. Though as always, some families did not feel they received as many nets as they thought they deserved. However, overall, it is felt that the programme managed to reach practically every household in the province except those mentioned above.

Conclusions

Overall it can be said that the project was a success both in terms of results and joint coordination of the project by RAM field staff members together with district health staff and Catholic, Baptist, Lutheran and Four Square Church Health Services 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. One result of this is that RAM officers generally received far less complaints at the time of distribution than they have done in the past.

As with other provinces in the country where RAM has operated in over the last seven years, the methodologies used 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.



**Fig. 9 – Malaria Incidence Versus Distribution Of Nets
(Green Arrows Represent Years Of Distribution)**

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 Census Lists also from 2000 are also very important to ensure that survey teams reach 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, DHTs of Enga 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 encountered.



Fig.10 – Distributions In Kompiam (Left) and Sopas (Right)

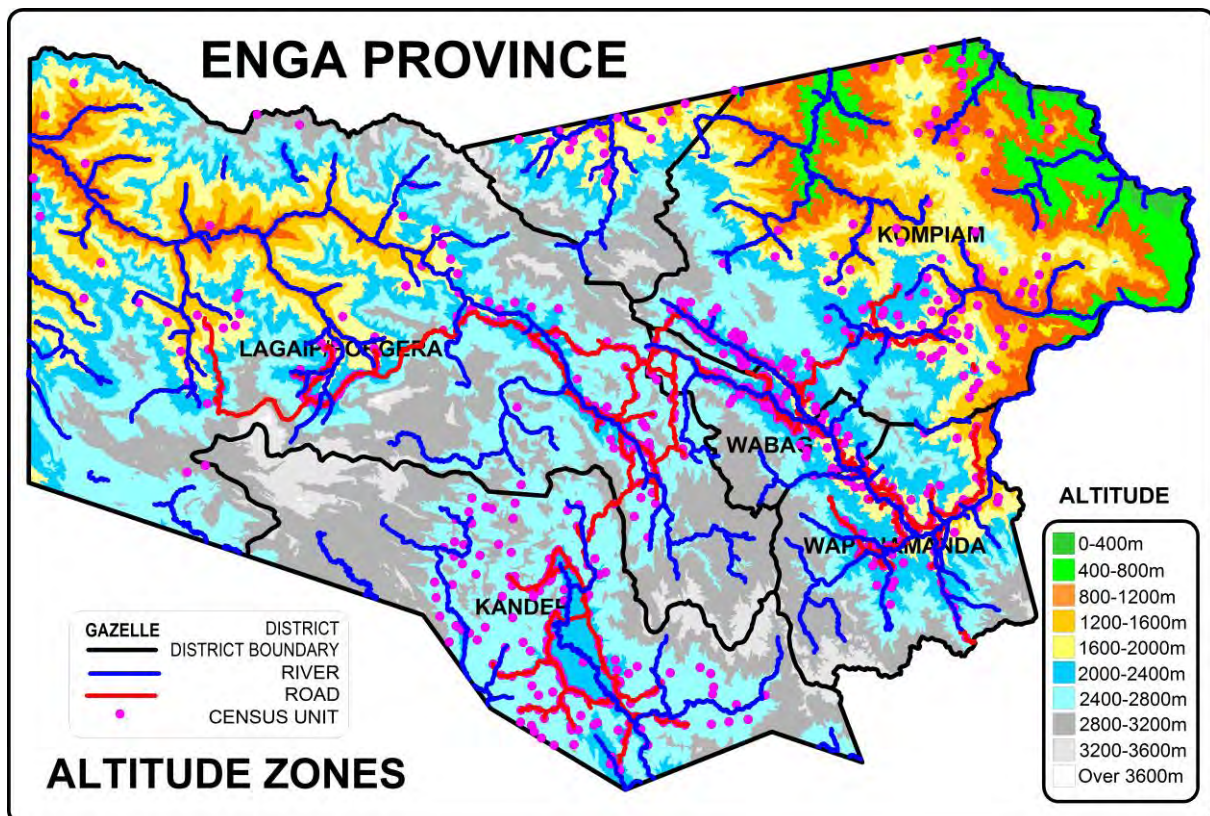


Fig.11 - Altitude Zones Of Enga

It is hoped that most of general problems encountered in the field are now familiar to RAM teams and as the teams move into other provinces, RAM officers become facilitators rather than implementers. This allows for much of the work to be carried out by District Health Teams. This will allow the survey and distribution of nets to occur much quicker even though it does mean that RAM officers may not have the same oversight as when they are more intimately

involved with the project in carrying out the activities themselves. However, getting a balance of close supervision by RAM officers of activities and allowing activities to be carried out by others will be an ongoing challenge in the future. One process slows down the distribution time while the other speeds it up finding the right balance will be a challenge as this project continues.

Partners Involved In The Distribution

Partners:

1. Provincial and Regional Health Officers
2. Catholic, Baptist, Lutheran and Four Square Church Health Services.
3. Health facility health staff.
4. Teachers and Head Masters
5. Village Councillors/Peace Officers/ Chiefs/Youths
6. Village Health Volunteers (VHV)
7. All the Communities in the district

Acknowledgements

Rotarians Against Malaria would particularly like to thank Mr. Aaron Luai (Chief Executive Officer) and his team with special thanks to Betty Koko (Director of Public Health), Likas Lakain (Provincial Disease Control Officer) and Alupa Ruma (Provincial Malaria Supervisor) for their excellent support and help throughout the distribution in Enga. Without their assistance, this programme would not have been possible.

We would also like to thank all the health staff in various health centres who assisted in the programme. Below is a list of people specifically mentioned by RAM officers but there are a large number of other health staff and team leaders too many to mention who assisted with their time and help throughout the survey and distribution period.

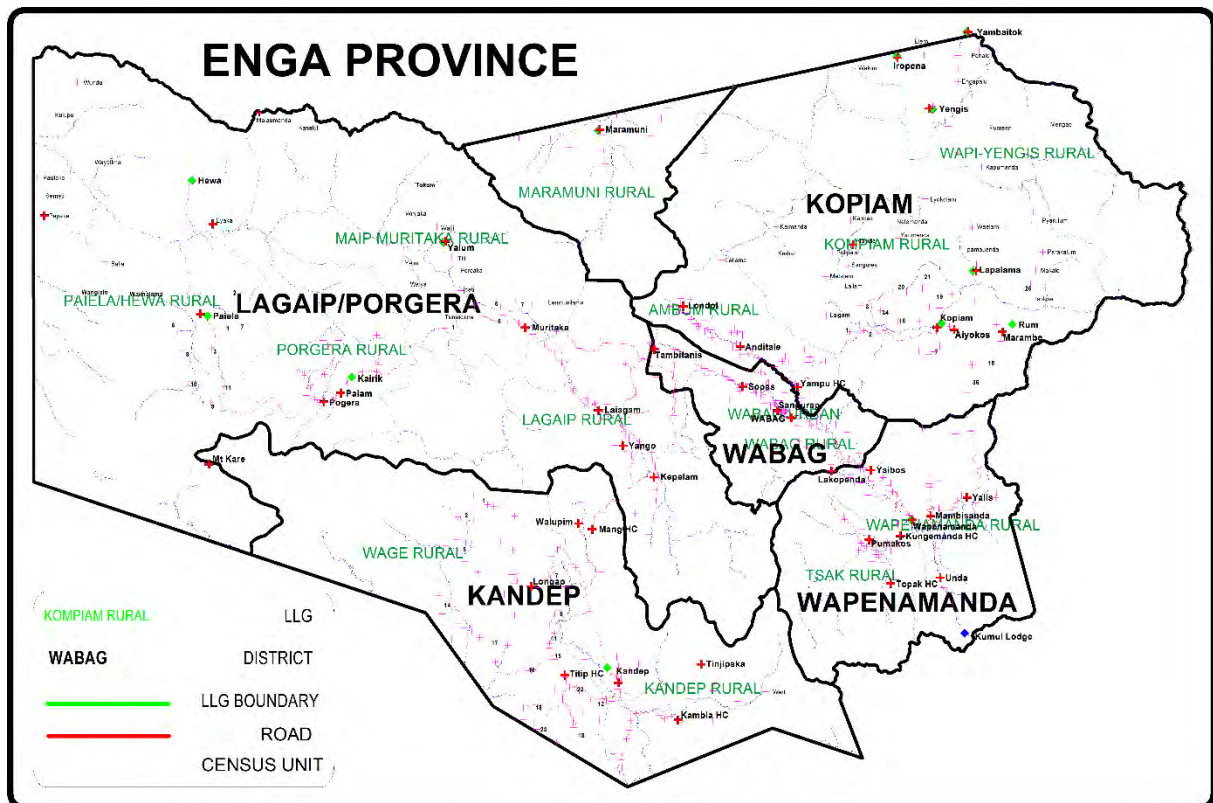
To the church partners, RAM would like to sincerely thank the Catholic, Baptist, Lutheran and Four Square Church Health Services for supporting RAM through its health services in their respective health centres.

RAM would also like to thank all the community members who welcomed RAM officers and health staff into their villages and assisted in making the programme work.

ACKNOWLEDGEMENT LIST – ENGA PROVINCE 2017 ANNEX ONE - Map Of Enga Showing Census Points Of 2000 Census

NAME	OCCUPATION	INSTITUTE
Tim Poi	District Health Officer	Enga Provincial Health Office
Mr. Jerry Tumu	District Health Officer - Laiagam	Laiagam District
Jessie James	Officer In Charge	Kungumanda Health Centre
Gabriel Pala	Officer In Charge	Yalis Health Centre
Newton Leap	Officer In Charge	Kaipre Health Centre
Nylio Tumbo	Sister In Charge	Unda Health Centre
Paul Wetau	Community Health Worker	Topak Health Centre
Paul Kita	Officer In Charge	Pumakos Health Centre
Mr. Simeon	Elementary Care Taker	Hewa Elementary School
Mrs Noreeen John	Sister In Charge	Sopas Hospital

Mr. Isaac Traima	Community Health Worker	Sopas Hospital
Rhonda Roma	Nursing Office	Malumanda Health Centre
Mr. Nickson Yapara	Deputy Headmaster	Yangis Primary School
Titipu Nele	Pastor	Iripino Village Church
John Amba	Officer In Charge	Mambisanda Health Centre
Mrs Betty Isaac	Community Health Worker	Maramuni Health Centre
Manuel Are	Senior Nursing Officer	Yampu Health Centre
Meck Weo	Community Health Worker	Yampu Health Centre
Paul Buka	Officer In Charge	Kasi Health Centre
John Ten	Officer In Charge	Anditale Health Centre
Jerry Maku	District Health Manager	Pogera District
Samson Yungu	Community Health Worker	Pogera Urban Clinic
Mr. Heddie Meka	Community Health Worker	Pogera Urban Clinic
Mr. Wai Puri	District Health Manager	Laiagap District
Mr. Newman Tanyo	Nursing Officer	Muritaka Health Centre
Mary Tolo	Nursing Officer	Muritaka Health Centre



OTHER PHOTOGRAPHS



Car And Road Problems In Kompiam



Unloading A Container In Porgera To Pull It Off The Truck (Left) Distribution Im Kompiam (Kompiam)



Distributions In Sopas (Left) And Hewa (Right)

OTHER PICTURES



ANNEX TWO

**ENGA PROVINCE
KOMPIAM DISTRICT POPULATION 2017
LLIN DISTRIBUTION SUMMARY SHEET**

LLG	WARD	VILLAGE	Estimated 2017 Population Based On Census	Estimated 2017 Population Based On 2014 Census	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
KOMPIAM			60,492	60,492		52,597	10,367	25,330		121	0	1	1,854	130	
AMBUR RURAL			21,502	20,326		23,671	4,758	11,391		52	0	0	867	52	
1	PAR		1,344	1,791		1,738	358	811		3	0	0	96		
		Par	733	900	Yampu HC	971	200	453	16.05.17	1	0	0	0	NBC	30 Min Trek
		Kaumanda	527	588	Yampu HC	629	118	289	16.05.17	1	0	0	69	NBC	30 Min Trek
		Par Mission /School	85	303	Yampu HC	138	40	69	16.05.17	1	0	0	27	NBC	30 Min Trek
2	RAKAPOS		1,249	2,130		3,334	650	1,567		3	0	0	43		
		Rakapos	643	1,210	Yampu HC	1,732	400	826	16.05.17	1	0	0	25	NBC	One book missing/Lost
		Takawas	265	694	Yampu HC	751	100	344	16.05.17	1	0	0	0	NBC	Trek
		Wambup	341	227	Yampu HC	851	150	397	16.05.17	1	0	0	18	NBC	Trek
3	YAMBU		907	1,177		1,124	223	541		3	0	0	34		
		Yambu	269	282	Yampu HC	484	79	232	16.05.17	1	0	0	26	NBC	Road
		Liumanda	302	410	Yampu HC	432	90	208	16.05.17	1	0	0	8	NBC	Road
		Tinja	337	485	Yampu HC	208	54	101	16.05.17	1	0	0	0	NBC	Road
4	TIALIPOS		1,058	1,416		1,090	225	552		3	0	0	23		
		Tialipos	382	490	Yampu HC	388	76	192	18.05.17	1	0	0	7	NBC	Road
		Awalemanda	307	464	Yampu HC	251	58	133	18.05.17	1	0	0	4	NBC	Road
		Yangeleyo	368	462	Yampu HC	451	91	227	17.05.17	1	0	0	12	NBC	Road
5	AIMATES		1,247	1,428		2,365	450	1,152		3	0	0	85		
		Aimates	748	519	Yampu HC	998	200	469	15.05.17	1	0	0	27	NBC	One book missing/Lost
		Meriamanda	252	676	Yampu HC	812	150	407	15.05.17	1	0	0	33	NBC	Road
		Pokari	247	233	Yampu HC	555	100	276	15.05.17	1	0	0	25	NBC	Road
6	TALEMANDA		622	896		1,665	292	772		3	0	0	53		
		Talemanda	326	495	Yampu HC	431	100	211	13.05.17	1	0	0	0	NBC	Road
		Apumanda	150	217	Yampu HC	732	100	327	13.05.17	1	0	0	49	NBC	Road
		Kapapus (Kapopais)	146	184	Yampu HC	502	92	234	13.05.17	1	0	0	4	NBC	Road
7	PALIMB		866	894		700	184	352		3	0	0	20		
		Palimb	284	337	Anditale HC	190	60	103	13.05.17	1	0	0	6	NBC	Road
		Sambaibas	236	444	Anditale HC	415	100	198	13.05.17	1	0	0	1	NBC	Road
		Kondaip	347	112	Anditale HC	95	24	51	13.05.17	1	0	0	13	NBC	Road
8	PANDAI		745	822		1,243	246	622		3	0	0	3		
		Pandai	165	195	Anditale HC	355	50	169	13.05.17	1	0	0	0	NBC	Road
		Nomal	327	308	Anditale HC	414	100	212	13.05.17	1	0	0	0	NBC	Road
		Kundis	252	319	Anditale HC	474	96	241	13.05.17	1	0	0	3	NBC	Road
9	KASI		1,098	848		1,356	309	688		3	0	0	104		
		Kasi	292	282	Anditale HC	455	109	241	14.05.17	1	0	0	14	NBC	Road
		Yukumanda	362	270	Anditale HC	449	100	219	14.05.17	1	0	0	61	NBC	Road
		Isamanda	445	297	Anditale HC	452	100	228	14.05.17	1	0	0	29	NBC	Road
10	LAKUI		435	472		480	100	234		1	0	0	0		
		Lakui	334	278	Anditale HC	480	100	234	11.05.17	1	0	0	0	Radio Enga	Done from Sopas Hosp.
		Yalepos	101	194	Anditale HC										Included under Lakui
11	LAKAMANDA		450	830		808	179	411		2	0	0	3		
		Lakamanda	289	542	Anditale HC	446	109	224	14.05.17	1	0	0	3	NBC	Road
		Palope	161	288	Anditale HC	362	70	187	14.05.17	1	0	0	0	NBC	Road
12	TSIKIRO		1,004	1,173		923	182	464		3	0	0	21		
		Tsikiro	393	332	Anditale HC	373	71	176	14.05.17	1	0	0	0	NBC	Road
		Kipipres	557	601	Anditale HC	450	90	239	14.05.17	1	0	0	4	NBC	Road
		Tsikiro Mission & Community Sc	55	241	Anditale HC	100	21	49	14.05.17	1	0	0	17	NBC	Road
13	NALYA (TSIKIRO)		1,015	1,026		959	158	427		3	0	0	25		
		Nailya	248	179	Anditale HC	274	41	121	15.05.17	1	0	0	11	NBC	Road
		Pindal	564	471	Anditale HC	379	71	165	15.05.17	1	0	0	0	NBC	Road
		Porea	203	376	Anditale HC	306	46	141	15.05.17	1	0	0	14	NBC	Road
14	ANDITALE		1,037	1,452		1,542	287	727		4	0	0	0		
		Saka	430	377	Anditale HC	663	150	327	15.05.17	1	0	0	0	NBC	Road
		Tongemas	237	474	Anditale HC	368	66	170	15.05.17	1	0	0	0	NBC	Road
		Malyanda	284	448	Anditale HC	426	53	192	15.05.17	1	0	0	0	NBC	Road
		Anditale Stn. School	86	153	Anditale HC	85	18	38	15.05.17	1	0	0	0	NBC	Road
15	ANDITALE 2		524	116		233	51	108		2	0	0	8		
		Kepondi	356	116	Anditale HC	98	17	43	15.05.17	1	0	0	0	NBC	Road
		Paimanda	168	0	Anditale HC	135	34	65	15.05.17	1	0	0	8	NBC	Road
16	OMAIN		869	1,502		1,403	303	662		5	0	0	13		
		Ambolam	338	473	Anditale HC	228	59	108	15.05.17	1	0	0	0	NBC	Road
		Waima	141	216	Anditale HC	400	60	185	15.05.17	1	0	0	0	NBC	Road
		Walugu	209	301	Anditale HC	268	66	126	15.05.17	1	0	0	0	NBC	Road
		Kiakai	181	256	Anditale HC	258	60	126	15.05.17	1	0	0	13	NBC	Road
		Omain		256	Anditale HC	249	58	117	15.05.17	1	0	0	0	NBC	Road
17	MONOKAM		667	1,041		1,720	276	814		3	0	0	37		
		Monokam	409	636	Anditale HC	833	145	403	17.05.17	1	0	0	18	NBC	Road
		Yakanda	237	314	Anditale HC	597	81	274	17.05.17	1	0	0	0	NBC	Road
		Monokam School & A/P	20	91	Anditale HC	290	50	137	17.05.17	1	0	0	19	NBC	Road
18	TAGEM		615			High Altitude - Not Done									

LLG	WARD	VILLAGE	Estimated 2017 Population Based On Census	Estimated 2017 Population Based On 2014 Census	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
		Tagem	94		Lomdol HC										Road
		Sokaim	233		Lomdol HC										Road
		Makombi	288		Lomdol HC										Road
19	KUPIN		1,111			High Altitude - Not Done									
		Kupin	291		Lomdol HC										Road
		Mulilama	284		Lomdol HC										Road
		Weipis	266		Lomdol HC										Road
		Naiepelam	270		Lomdol HC										Road
20	KANOMARES		512			High Altitude - Not Done									
		Lep	225		Lomdol HC										Road
		Kombamates	113		Lomdol HC										Road
		Kupala	173		Lomdol HC										Road
21	KAMUS		697			High Altitude - Not Done									
		Kambus	248		Lomdol HC										Road
		Neolam (Neolama)	266		Lomdol HC										Road
		Tariok	108		Lomdol HC										Road
		Aimalipos	75		Lomdol HC										Road
22	LONDOL		1,133			High Altitude - Not Done									
		Londol	227		Lomdol HC										Road
		Kaindan	618		Lomdol HC										Road
		Waralia	220		Lomdol HC										Road
		Londol A/post & Mission /School	68		Lomdol HC										Road
23	ELAKALE		752			High Altitude - Not Done									
		Elakale	351		Lomdol HC										Road
		Naguin	287		Lomdol HC										Road
		Kiakale	115		Lomdol HC										Road
24	PENEI	LAILAMA)	811			High Altitude - Not Done									
		Lailama	811		Lomdol HC										12 hours trekk
25	YARULAMA		733	1,313		988	285	487		2	0	0	299		
		Yarulama	360	555	Yampu HC	515	150	253	17.05.17	1	0	0	150	NBC	Road
		Laumanda	373	758	Yampu HC	473	135	234	17.05.17	1	0	0	149	NBC	Road
KOMPIAM RURAL			30,108	26,822		21,765	4,023	10,438		54	0	1	987	54	
1	SILIM		1,430	1,183		1,089	234	523		2	0	0	0		
		Silim	815	592	Yampu HC2	476	107	237	12.05.17	1	0	0	0	NBC	Road/Trek
		Laep	615	591	Yampu HC2	613	127	286	12.05.17	1	0	0	0	NBC	Road/Trek
2	BIRIP		1,304	582		1,922	371	949		4	0	0	12		
		Birip	441	283	Aiyokos HC	459	100	244	12.05.17	1	0	0	11	NBC	Road
		Kepilam	430	244	Aiyokos HC	162	41	87	12.05.17	1	0	0	1	NBC	Road
		Lepres	434	56	Aiyokos HC	493	93	237	12.05.17	1	0	0	0	NBC	Road
		Kaipres		NEW	Aiyokos HC	808	137	381	12.05.17	1	0	0	0	NBC	
3	WAPAI		648	497		566	117	274		4	0	0	26		
		Wapai	303	266	Aiyokos HC	349	67	167	09.05.17	1	0	0	19	NBC	Road
		Aikemanda	345	231	Aiyokos HC	217	50	107	09.05.17	1	0	0	7	NBC	Road
4	SAUANDA		1,404	904		1,629	290	801		3	0	1	22		
		Sauanda	430	351	Aiyokos HC	835	149	407	12.05.17	1	0	0	0	NBC	Road
		Aiyokos	405	415	Aiyokos HC	650	117	327	12.05.17	1	0	1	0	NBC	Road
		Sirunki	569	137	Aiyokos HC	144	24	67	12.05.17	1	0	0	22	NBC	Road
5	AIYULUTES		839	507		521	100	256		2	0	0	13		
		Aiyulites	427	393	Aiyokos HC	318	50	150	12.05.17	1	0	0	0	NBC	Road
		Kepakanda	412	115	Aiyokos HC	203	50	106	12.05.17	1	0	0	13	NBC	Road
6	POMANDA		966	588											
		Pomanda	334	233	Aiyokos HC	Not Done Due to Tribal Fight									Road
		Sapen	379	152	Aiyokos HC	Not Done Due to Tribal Fight									Road
		Talyokos	252	202	Aiyokos HC	Not Done Due to Tribal Fight									Road
7	KIPILIMANDA		1,190	880											
		Kipilimanda	468	589	Kompian HC	Not Done Due to Tribal Fight									1 Hr Trek
		Kumbares	239	0	Kompian HC	Not Done Due to Tribal Fight									Trek
		Tolekos	157	0	Kompian HC	Not Done Due to Tribal Fight									Trek
		Alukupais	326	291	Kompian HC	Not Done Due to Tribal Fight									1 Hr Trek
8	KOMPIAM STATION		718	829											
		Kompian Mission /Hosp	718	829	Kompian HC	Not Done Due to Tribal Fight									Road
9	IMBILIK		536	499											
		Imbilik	536	499	Kompian HC	Not Done Due to Tribal Fight									30 Min Trek
10	KAIPURES		596	403											
		Kaipures	229	168	Kompian HC	Not Done Due to Tribal Fight									1 Hr Trek
		Pakau	367	234	Kompian HC	Not Done Due to Tribal Fight									1 Hr Trek
11	WAIBUKAM		951	860											
		Waibukam	423	315	Kompian HC	Not Done Due to Tribal Fight									Road
		Laialam	528	545	Kompian HC	Not Done Due to Tribal Fight									Road
12	KAINDAN		630	792											
		Yulip		385	Kompian HC	Not Done Due to Tribal Fight									Road
		Kaindan	630	407	Kompian HC	Not Done Due to Tribal Fight									Road
13	WINIKOS		821	353											
		Winikos	821	353	Kompian HC	Not Done Due to Tribal Fight									Road
14	LAIAGAM		510	678											
		Laiagam	128	151	Kompian HC	Not Done Due to Tribal Fight									Road
		Lemben	307	297	Kompian HC	Not Done Due to Tribal Fight									Road

LLG	WARD	VILLAGE	Estimated 2017 Population Based On Census	Estimated 2017 Population Based On 2014 Census	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment	
		Lipares	75	230	Kompiani HC	Not Done Due to Tribal Fight										Road
15	YAMANDA		1,498	1,395												
		Yamanda	831	816	Kompiani HC	Not Done Due to Tribal Fight										Road
		Lyuwas	667	579	Kompiani HC	Not Done Due to Tribal Fight										Road
16	LINGENAS		637	1,292												
		Lenginas	509	663	Maramb HC	Not Done Due to Tribal Fight										30 Min Trek
		Marambe	128	217	Maramb HC	Not Done Due to Tribal Fight										30 Min Trek
		Lyandmale		241	Maramb HC	Not Done Due to Tribal Fight										Trek
		Elyaipus		171	Maramb HC	Not Done Due to Tribal Fight										Trek
17	RUM		963	907												
		Rum	318	237	Maramb HC	Not Done Due to Tribal Fight										30 Min Trek
		Yalemanda	645	670	Maramb HC	Not Done Due to Tribal Fight										30 Min Trek
18	PAIP		793	834		1,020	239	496		3	0	0	150			
		Biakamanda	364	371	Kompiani HC	422	99	203	12.05.17	1	0	0	50	NBC		Road/2 Hr Trek
		Paip	251	199	Kompiani HC	415	100	202	12.05.17	1	0	0	98	NBC		Road/2 Hr Trek
		Ambokali	177	263	Kompiani HC	183	40	91	12.05.17	1	0	0	2	NBC		Road/2 Hr Trek
19	PAKALIAM		992	929		776	175	388		4	0	0	3			
		Pakaliam	124	223	Kompiani HC	188	50	102	09.05.17	1	0	0	0	NBC		Road/3 Hr Trek
		Kanomanda	336	270	Kompiani HC	264	50	131	09.05.17	1	0	0	3	NBC		Road/3 Hr Trek
		Tupip	252	243	Kompiani HC	148	25	70	09.05.17	1	0	0	0	NBC		Road/3 Hr Trek
		Walim	280	194	Kompiani HC	176	50	85	09.05.17	1	0	0	0	NBC		Road/3 Hr Trek
20	APERAS		898	771		915	189	420		2	0	0	45			
		Aperas	520	492	Kompiani HC	653	139	295	09.05.17	1	0	0	25	NBC		Road
		Pakaliluum	378	278	Kompiani HC	262	50	125	09.05.17	1	0	0	20	NBC		Road
21	KIOKAI		445	224		588	128	298		2	0	0	28			
		Kiokai	227	95	Kompiani HC	357	78	180	09.05.17	1	0	0	11	NBC		/Road3 Hr Trek
		Kalokamanda	218	128	Kompiani HC	231	50	118	09.05.17	1	0	0	17	NBC		/Road3 Hr Trek
22	LIAP		820	597		537	124	261		2	0	0	0			
		Liap	396	284	Kompiani HC	320	79	155	11.05.17	1	0	0	0	NBC		Road/4 Hr Trek
		Lyokolam	424	314	Kompiani HC	217	45	106	11.05.17	1	0	0	0	NBC		Road/4 Hr Trek
23	IPAMAUANDA		1,090	1,049		1,147	214	487		3	0	0	213			
		Ipamauanda	413	482	Lapalama HC	293	41	123	02.06.17	1	0	0	40	SAU FM		2 hrs Trek from HC
		Pyarulam	439	382	Lapalama HC	594	123	257	04.06.17	1	0	0	123	SAU FM		10 hrs 15 mins Trek from HC
		Warelam	237	185	Lapalama HC	260	50	107	02.06.17	1	0	0	50	SAU FM		4 hrs Trek from HC
24	LAPALAMA		505	521		550	110	240		3	0	0	92			
		Lapalama	67	0	Lapalama HC	263	50	112	31.05.17	1	0	0	32	SAU FM		0 - 5 mins trek from HC
		Kamalam	239	285	Lapalama HC	142	30	65	31.05.17	1	0	0	30	SAU FM		30 mins - 1 hr trek from HC
		Tapaikinis	199	237	Lapalama HC	145	30	63	31.05.17	1	0	0	30	SAU FM		4 hrs Trek from HC
25	LYAIMANDA		603	607		680	95	298		2	0	0	87			
		Lyaimanda	352	224	Lapalama HC	280	50	132	01.06.17	1	0	0	42	SAU FM		3 hrs Trek from HC
		Kopalapus	251	383	Lapalama HC	400	45	166	31.05.17	1	0	0	45	SAU FM		30 mins Trek from HC
26	RUDISAU		887	396		589	101	277		4	0	0	101			
		Rudisau	542	117	Lapalama HC	285	45	129	04.06.17	1	0	0	45	SAU FM		9 hrs Trek from HC
		Isokoe	132	81	Lapalama HC	153	28	72	04.06.17	1	0	0	28	SAU FM		9 hrs Trek from HC
		Irasimanda	100	0	Lapalama HC	44	8	25	04.06.17	1	0	0	8	SAU FM		9 hrs Trek from HC
		Ende	113	198	Lapalama HC	107	20	51	04.06.17	1	0	0	20	SAU FM		7 hrs Trek from HC
27	LAILAM No 1		592	1,654		1,521	241	702		3	0	0	69			
		Lailam	287	619	Yampu HC2	471	71	218	12.05.17	1	0	0	21	NBC		Road/4Hr Trek
		Matalam	306	623	Yampu HC2	590	89	268	12.05.17	1	0	0	19	NBC		Road/4Hr Trek
		Kepakanda		412	Yampu HC2	460	81	216	12.05.17	1	0	0	29	NBC		Road/4Hr Trek
28	KEMAN		656	412		437	66	203		1	0	0	10			
		Keman	656	412	Yampu HC2	437	66	203	12.05.17	1	0	0	10	NBC		Road/4Hr Trek
29	KAIMANDA		583	350		509	79	239		1	0	0	9			
		Kaimanda	583	350	Yampu HC2	509	79	239	12.05.17	1	0	0	9	NBC		Road/1 Day Trek
30	PULIPAIS		484	687		500	100	269		1	0	0	0			
		Pulipais	484	687	Kompiani HC	500	100	269	12.05.17	1	0	0	0	NBC		Road/1 Day Trek
31	ALAKULA		981	1,254		2,191	300	1,041		1	0	0	0			
		Alakula	504	642	Kompiani HC	1,162	150	533	12.05.17	1	0	0	0	NBC		Road/1 Day Trek
		Sangures	478	611	Kompiani HC	1,029	150	508	12.05.17	1	0	0	0	NBC		Road/1 Day Trek
32	KAIMAS		828	1,165		1,874	300	876		2	0	0	0			
		Kaimas	375	558	Kompiani HC	1,021	150	456	12.05.17	1	0	0	0	NBC		Road/2 Day Trek
		Umokea	453	607	Kompiani HC	853	150	420	12.05.17	1	0	0	0	NBC		Road/2 Day Trek
33	YUAMANDA		712	773		1,310	250	674		3	0	0	0			
		Yaumanda	381	499	Kompiani HC	556	100	268	11.05.17	1	0	0	0	NBC		Road
		Nelemanda	332	274	Kompiani HC	472	100	263	11.05.17	1	0	0	0	NBC		Road/3 hrs Trek
		Maiperi		NEW	Kompiani HC	282	50	143	11.05.17	1	0	0	0	NBC		Road/4 hrs Trek
34	SAMAREMANDA		629	733		894	200	466		3	0	0	107			
		Samaremanda	169	239	Kompiani HC	432	100	237	09.05.17	1	0	0	75	NBC		Road
		Wali	261	213	Kompiani HC	230	50	116	09.05.17	1	0	0	0	NBC		Road
		Anditale	199	282	Kompiani HC	232	50	113	09.05.17	1	0	0	32	NBC		Road
35	YAWALIMANDA		570	409	716											
		Yawalimanda	570	409	Kompiani HC	Not Done Due to Tribal Fight										Road/4 Hr Trek
36	AIPANDA		678	0												
		Aipanda	592	0	Kompiani HC	Not Done Due to Tribal Fight										Road/Trek
		Yawalimanda	86	0	Kompiani HC	Not Done Due to Tribal Fight										Road/Trek
37	AMAIMALE		247	307												
		Amaimale	247	307	Maramb HC	Not Done Due to Tribal Fight										Trek
38	MAKALE		469	0												

LLG	WARD	VILLAGE	Estimated 2017 Population Based On Census	Estimated 2017 Population Based On 2014 Census	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment	
		Makale	231	0	Maramb HC	Not Done Due to Tribal Fight										Trek
		Parakalam	239	0	Maramb HC	Not Done Due to Tribal Fight										Trek
			0													
WAPI YENGIS RURAL			8,882	6,405		7,161	1,586	3,501		15	0	0	0	24		
1	YENGIS		325	258		544	98	224		2	0	0	0			
		Yengis Stn	165	131	Yengis HC	267	49	120	02.06.17	1	0	0	0	NBC	Airstrip Here	
		Kuimas	160	127	Yengis HC	277	49	104	02.06.17	1	0	0	0	NBC	Trek	
2	SAINA		329	399		427	97	199		2	0	0	0			
		Saina (Yengis)	157	136	Yengis HC	219	49	103	02.06.17	1	0	0	0	NBC	Trek	
		Newtown	172	263	Yengis HC	208	48	96	02.06.17	1	0	0	0	NBC	Trek	
3	KENAILAMA		669	729		784	197	366		1	0	0	0			
		Kenailama	669	729	Yengis HC	784	197	366	02.06.17	1	0	0	0	NBC	3 Hr Trek	
4	MULALE		910	743		822	198	405		1	0	0	0			
		Muale	910	743	Yengis HC	822	198	405	04.06.17	1	0	0	0	NBC	3 Hr Trek	
5	WARABUL		811	500		396	81	184		2	0	0	0			
		Warabul	396	500	Yengis HC	177	31	81	02.06.17	1	0	0	0	NBC	4 Hr Trek	
		Paikao	415	0	Yengis HC	219	50	103	03.06.17	1	0	0	0	NBC	To be covered by HC staff	
6	PULUKULAMA		581	238		142	27	64		1	0	0	0			
		Pulukulama	581	238	Yengis HC	142	27	64	03.06.17	1	0	0	0	NBC	1 Day Trek	
7	PUMEAN		576	557		659	148	300		1	0	0	0			
		Pumean	576	557	Yengis HC	659	148	300	03.06.17	1	0	0	0	NBC	1 Day Trek	
8	KAPUMANDA		1,067	488		397	100	201		1	0	0	0			
		Kapumanda	1,067	488	Yengis HC	397	100	201	01.06.17	1	0	0	0	NBC	1 Day Trek	
9	MENGAO		680	329		364	88	176		1	0	0	0			
		Mengao	680	329	Yengis HC	364	88	176	01.06.17	1	0	0	0	NBC	2 Day Trek	
10	MOSOP		559	510		622	147	282		3	0	0	0			
		Mosop	158	19	Yengis HC	213	50	100	02.06.17	1	0	0	0	NBC	1 Day Trek	
		Engapalu	124	267	Yengis HC	212	48	83	02.06.17	1	0	0	0	NBC	1 Day Trek	
		Kombaulam	277	224	Yengis HC	197	49	99	04.06.17	1	0	0	0	NBC	1 Day Trek	
11	YAMBAITOK		581	465		505	126	315		0	0	0	0			
		Yambaitok	431	385	Yambaitok AF	385	97	248	03.06.17	yes	0	0	0		Trek	
		Penale	150	79	Yambaitok AF	120	29	67	03.06.17	yes	0	0	0		Trek	
12	KOPAIPALA		542	139		188	35	100		0	0	0	0			
		Kopaipalu	542	139	Iripino AP	188	35	100	02.06.17	0	0	0	0	FM 100	Trek	
13	OLIMOLI		1,030	368		519	100	268		0	0	0	0			
		Olimoli	615	168	Iripino AP	269	50	135	03.06.7	0	0	0	0	FM 100	Trek	
		Wakim	415	48	Iripino AP	33	8	19	01.06.17	0	0	0	0	FM 100	Trek	
		Kurump (ESP)		80	Iripino AP Ex	117	25	64	01.06.17	0	0	0	0	FM 100	Trek	
		Kainam (ESP)		72	Iripino AP Ex	100	17	50	03.06.17	0	0	0	0	FM 100	Trek	
14	ELEM		222	229		261	39	131		0	0	0	0			
		Elem	222	157	Iripino AP	153	22	77	03.06.17	0	0	0	0	FM 100	Trek	
		Kurump (ESP)		72	Iripino AP	108	17	54	03.06.17	0	0	0	0	FM 100	Trek	
15	IRIPINO (ESP)			454		531	105	286		0	0	0	0			
		Iripino (ESP)		303	Iripino AP Ex	413	81	227	31.05.17	0	0	0	0	FM 100	Trek	
		Welmo		151	Iripino AP Ex	118	24	59	02.06.17	0	0	0	0	FM 100	Trek	

ANNEX THREE

**ENGA PROVINCE
LAGAIP DISTRICT POPULATION 2017
LLIN DISTRIBUTION SUMMARY SHEET**

LLG	WARD	VILLAGE	Estimated 2014 Population Based On 2000 Census	Estimated 2017 Population Based On 2014 Census	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
		LAGAIP \ PORGERA	128,057	128,057		70,163	10,917	32,088		73	41	0	425	49	
		LAGAIP RURAL	57,969			0	0	0		0	0	0	0	0	
1	KINAPULAM		770		0	High Altitude - Not Done									
		Kinapulam	398		Kepalem HC										Road
		Lyainilam	371		Kepalem HC										Road
2	YOKONDA		916			High Altitude - Not Done									
		Yokonda	519		Kepalem HC										Road
		Mulisos	397		Kepalem HC										Road
3	TUPANGUS		1,417			High Altitude - Not Done									
		Tupangus	739		Kepalem HC										Road
		Pumas	339		Kepalem HC										Road
		Aipi	339		Kepalem HC										Road
4	PORGERAS		2,232			High Altitude - Not Done									
		Porgeras	1,365		Kepalem HC										Road
		Kaindan	464		Kepalem HC										Road
		Ais	402		Kepalem HC										Road
5	YENGI		1,230			High Altitude - Not Done									
		Yengil	474		Kepalem HC										Road
		Wagam	374		Kepalem HC										Road
		Yakapele	381		Kepalem HC										Road
6	KAILAM		699			High Altitude - Not Done									
		Kailam	332		Kepalem HC										Road
		Pyauti	367		Kepalem HC										Road
7	LANDELAM		270			High Altitude - Not Done									
		Landelam	270		Kepalem HC										Road
8	PYAKAIN		1,281			High Altitude - Not Done									
		Pyakain	311		Kepalem HC										Road
		Pangu	464		Kepalem HC										Road
		Yokopiniam	265		Kepalem HC										Road
		Kendelam	241		Kepalem HC										Road
9	TUMBIOP		1,205			High Altitude - Not Done									
		Tumbiop	573		Kepalem HC										Road
		Kapililam	604		Kepalem HC										Road
		Tumbiop C/sch, Mission & A/Pc	28		Kepalem HC										Road
10	KANAMANDA		632			High Altitude - Not Done									
		Kanamanda	632		Kepalem HC										Road
11	KEPELAM		1,417			High Altitude - Not Done									
		Kepelam	690		Kepalem HC										Road
		Lindita	591		Kepalem HC										Road
		Kepelam Community School	39		Kepalem HC										Road
		Kepelam H/C& Mission	97		Kepalem HC										Road
12	MAPOMANDA		605			High Altitude - Not Done									
		Mapomanda	155		Kepalem HC										Road
		Ladapus	433		Kepalem HC										Road
		Mapomanda Community School	17		Kepalem HC										Road
13	PAPAYUKU		1,821			High Altitude - Not Done									
		Papyuku	708		Laiagam Dist. Hosp.										Road
		Kembol	371		Laiagam Dist. Hosp.										Road
		Yakyak	153		Laiagam Dist. Hosp.										Road
		Yalumandaka	504		Laiagam Dist. Hosp.										Road
		Papyuku Community School & M	84		Laiagam Dist. Hosp.										Road
14	KIPOS		850			High Altitude - Not Done									
		Kipos	585		Laiagam Dist. Hosp.										Road
		Yakopiamanda	265		Laiagam Dist. Hosp.										Road
15	PULUKUS		1,027			High Altitude - Not Done									
		Tambus	581		Laiagam Dist. Hosp.										Road
		Kondal	446		Laiagam Dist. Hosp.										Road
16	KANAK		2,788			High Altitude - Not Done									
		Kanak	841		Laiagam Dist. Hosp.										Road
		Niugu	760		Laiagam Dist. Hosp.										Road
		Wanepop	1,140		Laiagam Dist. Hosp.										Road
		Kanak A/post, E/School & Missi	46		Laiagam Dist. Hosp.										Road
17	YANGO		1,126			High Altitude - Not Done									
		Yango	455		Yango SHC										Road
		Pais	284		Yango SHC										Road
		Sakanimanda	387		Yango SHC										Road
18	TENDEP		1,068			High Altitude - Not Done									
		Tendep	547		Yango SHC										Road
		Takip	521		Yango SHC										Road
19	MAMALE		1,311			High Altitude - Not Done									
		Takip	1,311		Laiagam Dist. Hosp.										Road
20	KEMBOS		1,873			High Altitude - Not Done									

LLG	WARD	VILLAGE	Estimated 2014 Population Based On 2000 Census	Estimated 2017 Population Based On 2014 Census	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
		Kembos	767		Laiagam Dist. Hosp.										Road
		Kaipores	563		Laiagam Dist. Hosp.										Road
		Kuplam	543		Laiagam Dist. Hosp.										Road
21	KOMIAP		722												High Altitude - Not Done
		Komaip	722		Laiagam Dist. Hosp.										Road
22	WANAPOS		1,565												
		Wanapos	623		Laiagam Dist. Hosp.										Road
		Saimanda	758		Laiagam Dist. Hosp.										Road
		Latulam	183		Laiagam Dist. Hosp.										Road
23	TAKUUP		711												High Altitude - Not Done
		Takuup	711		Laiagam Dist. Hosp.										Road
24	KASAP		3,806												High Altitude - Not Done
		Kasap	3,808		Laiagam Dist. Hosp.										Road
25	YENGI		566												High Altitude - Not Done
		Yengiyengi	566		Laiagam Dist. Hosp.										Road
26	KINDAREP		933												High Altitude - Not Done
		Kindarep	933		Laiagam Dist. Hosp.										Road
27	YAKENDA		1,599												High Altitude - Not Done
		Yakenda	1,399		Laiagam Dist. Hosp.										Road
		Yakenda A/post & Community S	200		Laiagam Dist. Hosp.										Road
28	KERAIPAKA		1,158												High Altitude - Not Done
		Keraipaka	1,158		Laiagam Dist. Hosp.										Road
29	AIYAK		1,720												High Altitude - Not Done
		Aiyak	1,720		Laiagam Dist. Hosp.										Road
30	IPAI		1,307												High Altitude - Not Done
		Ipai	1,307		Laiagam Dist. Hosp.										Road
31	LYONGE		1,410												High Altitude - Not Done
		Lyonge	1,410		Laiagam Dist. Hosp.										Road
32	PIAP		1,168												High Altitude - Not Done
		Paip	1,168		Laiagam Dist. Hosp.										Road
33	LIOP		1,265												High Altitude - Not Done
		Liop	1,265		Laiagam Dist. Hosp.										Road
34	YAKENDA		1,575												High Altitude - Not Done
		Yakenda	1,575		Laiagam Dist. Hosp.										Road
35	MAMITES		1,390												High Altitude - Not Done
		Mamaites	1,390		Laiagam Dist. Hosp.										Road
36	NAGUTES		536												High Altitude - Not Done
		Nugutes	536		Laiagam Dist. Hosp.										Road
37	KAIPARE		1,424												High Altitude - Not Done
		Kaipare	1,424		Laiagam Dist. Hosp.										Road
38	POREA		1,347												High Altitude - Not Done
		Porea	1,347		Laiagam Dist. Hosp.										Road
39	TUKUSENDA		744												High Altitude - Not Done
		Tukusenda	744		Laiagam Dist. Hosp.										Road
40	NAGULAM		542												High Altitude - Not Done
		Nagulam	542		Laiagam Dist. Hosp.										Road
41	YOMONDI		989												High Altitude - Not Done
		Yomondi	989		Laiagam Dist. Hosp.										Road
42	KUSI		256												High Altitude - Not Done
		Kusi	256		Laiagam Dist. Hosp.										Road
43	PAINDAKO		1,295												High Altitude - Not Done
		Paindako	1,295		Laiagam Dist. Hosp.										Road
44	LYAMALA		1,613												High Altitude - Not Done
		Paindako	1,613		Laiagam Dist. Hosp.										Road
45	KULITA		124												High Altitude - Not Done
		Kulita	124		Laiagam Dist. Hosp.										Road
46	WATALI		910												High Altitude - Not Done
		Watali	910		Laiagam Dist. Hosp.										Road
47	YAKALYELE		902												High Altitude - Not Done
		Yakalyele	554		Laiagam Dist. Hosp.										Road
		Pipingus	348		Laiagam Dist. Hosp.										Road
48	KUIMAS		940												High Altitude - Not Done
		Kuimas	940		Laiagam Dist. Hosp.										Road
49	LAIAGAM URBAN		916												High Altitude - Not Done
		Council Chamber	350		Laiagam Dist. Hosp.										Road
		Commercial - Airstrip	138		Laiagam Dist. Hosp.										Road
		Hospital	194		Laiagam Dist. Hosp.										Road
		Dpi - Laiagam	189		Laiagam Dist. Hosp.										Road
		Dpi - Sda Mission	45		Laiagam Dist. Hosp.										Road
		****new													High Altitude - Not Done
					Laiagam Dist. Hosp.										
					Laiagam Dist. Hosp.										
			0	0											
MAIP MURITAKA RURAL			22,394	23,077		25,986	4,505	12,341		32	0	0	0	8	
1	TUMUDANE		3,473	3,413	23076.76504	3,922	738	1,899		6	0	0	0		Road
		Tumudane	737	869	Muritaka HC	923	150	427	11.05.17	1	0	0	0		Road
		Waimalama	728	415	Muritaka HC	431	100	207	11.05.17	1	0	0	0		Road
		Pimaka	182	482	Muritaka HC	476	93	247	11.05.17	1	0	0	0		Road

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		Ipati	715	254	Muritaka HC	354	50	173	11.05.17	1	0	0	0		Road
		Maip	934	1,022	Muritaka HC	1,259	273	635	10.05.17	1	0	0	0		Road
		Tumudane Community School	177	370	Muritaka HC	479	72	210	11.05.17	1	0	0	0		Road
2	WALYA		1,196	1,474		1,342	250	603		1	0	0			
		Walya	1,196	1,474	Muritaka HC	1,342	250	603	10.05.17	1	0	0	0		1 Day Trek
3	YEIM		1,796	1,793		1,706	359	758		4	0	0			
		Yeim	485	610	Muritaka HC	544	100	261	14.05.17	1	0	0	0		2 Day Trek
		Tokom	411	434	Muritaka HC	460	100	205	14.05.17	1	0	0	0		2 Day Trek
		Winjaka	332	443	Muritaka HC	285	64	132	10.05.17	1	0	0	0		2 Day Trek
		Waili	567	306	Muritaka HC	417	95	160	10.05.17	1	0	0	0		2 Day Trek
4	YALUM		1,784	1,641		1,137	218	516		3	0	0			
		Yalum	957	865	Muritaka HC	639	166	298		1	0	0	0		Trek
		Tili	201	345	Muritaka HC	179	36	83	10.05.17	1	0	0	0		Trek
		Poreaka	626	431	Muritaka HC	319	16	135	10.05.17	1	0	0	0		3 hours trek
5	TOMBAIP		1,404	1,227		819	145	404		2	0	0			
		Tombaip	594	539	Muritaka HC	748	131	354	14.05.17	1	0	0	0		Road and Trek
		Tokos	811	688	Muritaka HC	71	14	50	14.05.17	1	0	0	0		Road
6	RUMBAPRES		2,306	2,952		3,155	560	1,569		3	0	0			
		Rumbapres	523	488	Muritaka HC	445	77	236	12.05.17	1	0	0	0		Road
		Pokalip	1,482	1,866	Muritaka HC	1,920	350	944	13.05.17	1	0	0	0		Road
		Pain	301	597	Muritaka HC	790	133	389	13.05.17	1	0	0	0		Road/Trek
7	YAMBALI		3,415	3,936		5,477	872	2,581		5	0	0			
		Yambali	788	1,072	Muritaka HC	1,998	327	940	13.05.17	1	0	0	0		Road
		Yuyango	943	1,217	Muritaka HC	907	147	457	14.05.17	1	0	0	0		Road
		Ipalop	521	499	Muritaka HC	741	100	338	14.05.17	1	0	0	0		Road
		Kulipanda	533	665	Muritaka HC	952	150	395	14.05.17	1	0	0	0		Road
		Yambuli	630	483	Muritaka HC	879	148	451	13.05.17	1	0	0	0		Road
8	MURITAKA		3,873	3,840		5,831	848	2,786		4	0	0			
		Muritaka	1,576	1,425	Muritaka HC	1,892	272	906	13.05.17	1	0	0	0		Road
		Paitenges	1,065	869	Muritaka HC	1,363	199	645	13.05.17	1	0	0	0		Road
		Yakimaka	367	486	Muritaka HC	939	127	452	13.05.17	1	0	0	0		Road
		Koimale	864	1,060	Muritaka HC	1,637	250	783	13.05.17	1	0	0	0		Road
9	TORENAM		2,479	2,257		1,875	399	924		4	0	0			
		Torenam	764	642	Muritaka HC	533	100	262	11.05.17	1	0	0	0		Road
		Kopetes	664	419	Muritaka HC	424	100	206	11.05.17	1	0	0	0		Road
		Lambusilama	1,051	620	Muritaka HC	672	149	335	11.05.17	1	0	0	0		1 day Trek from Torenam
		Yengintapus		576	Muritaka HC	246	50	121	11.05.17	1	0	0	0		1 day Trek from Torenam
10	MALAMANDA		667	544		722	116	301		0	0	0			
		Malaumanda	100	149	Malumanda AP	139	20	56	28.05.17	0	0	0	0	NBC Enga	15 min trek
		Kasakali	210	162	Malumanda AP	68	10	31	27.05.17	0	0	0	0	NBC Enga	2 days trek
		Malaumanda A/strip, A/P.	357	233	Malumanda AP	211	31	87	28.05.17	0	0	0	0	NBC Enga	10 mins trek
		Ulipa			Malumanda AP	67	14	26	30.05.17	0	0	0	0	NBC Enga	4 days trek
		Anamanda			Malumanda AP	58	11	22	30.05.17	0	0	0	0	NBC Enga	2 days trek
		Poke			Malumanda AP	35	6	13	30.05.17	0	0	0	0	NBC Enga	3 hrs trek
		Takop			Malumanda AP	96	15	43	27.05.17	0	0	0	0	NBC Enga	2 days trek
		London			Malumanda AP	48	9	23	27.05.17	0	0	0	0	NBC Enga	4 hrs trek
PAIELA \ HEWA RURAL			15,597	11,164	6,388	753	110	370		0	0	0	0	0	
1	ASPIRINGA		507	170		Not Done Due to Tribal Fight									
		Aspiringa	507	170	Paiela										Trek
2	BEALO		1,237	43		Not Done Due to Tribal Fight									
		Bealo	459	43	Paiela										Trek
		Piawe	778	0	Paiela										Trek
3	INGILEP		1,200	446		Not Done Due to Tribal Fight									
		Ingilep	1,200	446	Paiela										Trek
4	KOLOMBI		1,212	413		Not Done Due to Tribal Fight									
		Kolombi	1,212	413	Paiela										Trek
5	WAIMALAMA		915	2,535		Not Done Due to Tribal Fight									
		Waimalama	408	2,145	Paiela										Trek
		Wangialo	507	390	Paiela										Trek
6	KOMANGA		981	594		Not Done Due to Tribal Fight									
		Komanga	981	594	Paiela										Trek
7	TAGOBA		653	268		Not Done Due to Tribal Fight									
		Tagoba	653	268	Paiela										Trek
8	TARONGA		260	319		Not Done Due to Tribal Fight									
		Taronga	260	319	Paiela										Trek
9	ANDITA		581	835		Not Done Due to Tribal Fight									
		Andita	440	572	Paiela										Road
		Yawaia	141	263	Paiela										Road
10	KANJIWI		753	57		Not Done Due to Tribal Fight									
		Kanjiwi	753	57	Paiela										Trek
11	MANDUKALE		618	467		Not Done Due to Tribal Fight									
		Mandukale	618	467	Paiela										Trek
12	PAPAKE		784	241		Not Done Due to Tribal Fight									
		Papake	335	81	Hewa										Not done due to tribal fight
		Semeti	128	34	Hewa										Not done due to tribal fight
		Pauteke	134	51	Hewa										Not done due to tribal fight
		Balia	187	22	Hewa										Not done due to tribal fight
		Witei		51	Hewa										Not done due to tribal fight

LLG	WARD	VILLAGE	Estimated 2014 Population Based On 2000 Census	Estimated 2017 Population Based On 2014 Census	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment	
13	MT KARE		2,575	3,345		Not Done Due to Tribal Fight										
		Mt Kare	1,031	2,092	Paiela											Trek
		Kare Puga	1,544	1,253	Paiela											Trek
14	WAIYONGA		639	119		Not Done Due to Tribal Fight										
		Waiyonga	639	119	Paiela											Trek
15	PAIELA STATION		1,576	339		Not Done Due to Tribal Fight										
		Tombena	1,576	339	Paiela											Trek
16	WAYALIMA		1,107	973		753	110	370		0	0	0	0			
		Wayalima	338	80	Hewa	269	39	132	29.05.17	0	0	0	0			Trek
		Eyaka	400	648	Hewa	203	34	101	28.05.17	0	0	0	0			Air strip here
		Wundu	180	165	Hewa	74	6	36	30.05.17	0	0	0	0			Trek
		Kulupu	190	80	Hewa	207	31	101	29.05.17	0	0	0	0			Trek
			0	0												
PORGERA RURAL			32,096	32,807		43,424	6,302	19,377		41	41	0	425	41		
1	ANAWA		4,223	6,409		10,826	1,303	4,842		6	6	0	285			
		Anawe	723	992	Pogera	1,341	187	616	12.05.17	1	1	0	18	93.5 FM		Road
		Lukulame	1,624	2,341	Pogera	4,487	413	1,964	12.05.17	1	1	0	66	93.5 FM		Road
		Kulapi	877	1,492	Pogera	1,827	282	839	10.05.17	1	1	0	132	93.5 FM		Road
		Pandadaka	826	1,210	Pogera	1,643	221	738	09.05.17	1	1	0	42	93.5 FM		Road
		Awumbi	173	373	Pogera	630	100	286	10.05.17	1	1	0	26	93.5 FM		Road
		Kumbi		NEW	Pogera	898	100	399	10.05.17	1	1	0	1	93.5 FM		Road
2	MUNGULEP		1,501	1,638		2,428	341	1,085		2	2	0	5			
		Mungulep	1,252	859	Pogera	1,692	211	742	09.05.17	1	1	0	0	93.5 FM		Road
		Kakadaka	249	779	Pogera	736	130	343	09.05.17	1	1	0	5	93.5 FM		Road
3	APALAKA		1,516	1,836		2,785	484	1,304		2	2	0	15			
		Apalaka	920	1,836	Pogera	2,276	385	1,067	11.05.17	1	1	0	0			Road
		Lepelama	595	0	Pogera	509	99	237	11.05.17	1	1	0	15	93.5 FM		Road
4	YUYANE		595	649		582	77	267		1	1	0	29			
		Yuyane	595	649	Pogera	582	77	267	09.05.17	1	1	0	29	93.5 FM		Road / Trek
5	POLITIKA		1,738	551		407	84	215		2	2	0	0			
		Politika	934	448	Pogera	244	61	139	10.05.17	1	1	0	0	93.5FM		Road
		Pirika	804	104	Pogera	163	23	76	09.05.17	1	1	0	0	93.5FM		Road
6	PAIYAM		2,807	5,119		5,375	871	2,345		3	3	0	0			
		Pimaka	998	810	Pogera	1,398	200	607	11.05.17	1	1	0	0	93.5FM		Road
		Lukale	913	1,265	Pogera	1,843	278	794	11.05.17	1	1	0	0	93.5FM		Road
		Suyan	896	1,747	Pogera	2,134	393	944	11.05.17	1	1	0	0	93.5FM		Road
		Paiam Town		834	Pogera											Covered in ward#18
		Haus Sik		461	Pogera											Covered in ward#18
7	PALAIPAKA		2,482	2,624		4,395	622	2,060		2	2	0	0			
		Palaiapaka	825	1,239	Pogera	1,312	227	749	11.05.17	1	1	0	0	93.5FM		Road
		Aritene	1,658	1,385	Pogera	3,083	395	1,311	11.05.17	1	1	0	0	93.5FM		Road people move in from Kairik
8	KAIRIK		1,259	1,609		891	134	391		1	1	0	0			
		Pandami	1,259	1,609	Pogera	891	134	391	10.05.17	1	1	0	0	93.5FM		People moved to aritene
9	TIPININI		1,759	1,174		1,316	318	601		3	3	0	0			
		Tipinini (Korarik)	816	535	Pogera	430	99	195	10.05.17	1	1	0	0	93.5FM		Road
		Kiya	554	459	Pogera	809	198	368	10.05.17	1	1	0	0	93.5FM		Road
		Lesai	388	180	Pogera	77	21	38	10.05.17	1	1	0	0	93.5FM		Road
10	YOMODAKA		1,331	1,125		1,122	211	497		3	3	0	0			
		Yomodaka	303	292	Pogera	356	63	155	10.05.17	1	1	0	0	93.5FM		Road
		Lapakepo	359	221	Pogera	234	50	99	10.05.17	1	1	0	0	93.5FM		Road
		Kukulama	670	612	Pogera	532	98	243	10.05.17	1	1	0	0	93.5FM		Road
11	YANJIKALE		3,714	3,288		3,816	559	1,572		2	2	0	0			
		Upper Mappingi	2,202	1,273	Pogera	1,365	208	573	12.05.17	1	1	0	0	93.5FM		Road
		Lower Mappingi	1,511	2,015	Pogera	2,451	351	999	12.05.17	1	1	0	0	93.5FM		Road
12	NEKEYANDA		83	710		661	77	286		1	1	0	24			
		Nekeyanga	83	710	Pogera	661	77	286	09.05.17	1	1	0	24	93.5FM		Road
13	YAPAREP		1,120	445		160	18	72		1	1	0	0			
		Yaparep	640	445	Pogera	160	18	72	09.05.17	1	1	0	0	93.5FM		Road
		Yoporai	480	0	Pogera	0	0							93.5FM		Most moved into town
14	YARIK		3,287	3,397		3,911	545	1,779		2	2	0	40			
		Yarik	2,418	2,372	Pogera	2,970	359	1,314	11.05.17	1	1	0	29	93.5FM		Road
		Timorope	870	1,025	Pogera	941	186	465	11.05.17	1	1	0	11	93.5 FM		Road
15	PANDAMI (KAIRIK)		1,250	0		1,093	170	485		2	2	0	0			
		Pandami	1,029	0	Pogera	833	132	367	10.05.17	1	1	0	0	93.5 FM		Road
		Ipandaka	221	0	Pogera	260	38	118		1	1	0	0	93.5 FM		Road
16	TAIPOKO		715	0		393	53	167		2	2	0	0			
		Taipoko	621	0	Pogera	256	33	114		1	1	0	0	93.5 FM		Road/Tribal Fight in 2014
		Tamakale	94	0	Pogera	137	20	53		1	1	0	0	93.5 FM		Road/Tribal Fight in 2015
17	PORGERA URBAN		1,990	1,651		2,293	285	984		4	4	0	27			
		Mountain Lodge	477	426	Pogera	736	99	312	12.05.17	1	1	0	0	93.5 FM		Road
		District Office - Town	373	472	Pogera	924	100	396	12.05.17	1	1	0	0	93.5 FM		Road
		Comm/Vocational School	411	294	Pogera	148	36	61	12.05.17	1	1	0	0	93.5 FM		Road
		Pjv Minesite-Alipis	296	119	Pogera	485	50	215	10.05.17	1	1	0	27	93.5 FM		Road
		Mine-Site	433	339	Pogera											Road / included with mine site
18	PAIAM TOWN		726	582		970	150	425		2	2	0	0			
		Shopping Center	376	278	Pogera	604	100	266	12.05.17	1	1	0	0	93.5 FM		Road
		Hospital/High School	350	304	Pogera	366	50	159	12.05.17	1	1	0	0	93.5 FM		Road

ANNEX FOUR

**ENGA PROVINCE
WABAG DISTRICT POPULATION 2017
LLIN DISTRIBUTION SUMMARY SHEET**

LLG	WARD	VILLAGE	Estimated 2014 Population Based On 2000 Census	Estimated 2017 Population Based On 2014 Census	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
WABAG			67,086	67,086		76,963	13,872	36,034		129	19	0	5,459	120	
WABAG URBAN			4,805	7,490		8,278	1,242	3,634		16	10	0	631	16	
		WABAG URBAN NEW SYSTEM	4,805	7,490											
	1	POLICCE BARRACKS	818	964		1,233	199	584		3	3	0	99		
		Police Barracks	309	354	Wabag Hosp.	557	84	258	22.05.17	1	1	0	50	FM Enga	Road
		D.P.I old Airstrip	508	95	Wabag Hosp.	102	15	47	22.05.17	1	1	0	15	FM Enga	Road
		Lanekep (Urban)		514	Wabag Hosp.	574	100	279	22.05.17	1	1	0	34	FM Enga	Road
	2	SDA OLD AIRSTRIFE	430	1,307		1,501	183	697		2	0	0	83		
		SDA Old Airstripe	430	196	Wabag Hosp.	349	50	162	22.05.17	1	0	0	50	FM Enga	Road
		White Corner (Beast Street)		1,111	Wabag Hosp.	1,152	133	535	22.05.17	1	0	0	33	FM Enga	Road
	3	TOWN COMMERCIAL	1,366	1,181		2,412	359	910		4	3	0	191		
		Wara Supply st. (Catholic Missi	39	210	Wabag Hosp.	323	50	152	22.05.17	1	1	0	34	FM Enga	Road
		Corrective Road (Langares)	312	498	Wabag Hosp.	843	107	179	22.05.17	1	1	0	0	FM Enga	Road
		Police Station	426		Wabag Hosp.	336	52	152	22.05.17	1	1	0	51	FM Enga	Road
		Dog Street	589	473	Wabag Hosp.	910	150	427	22.05.17	1	0	0	106	FM Enga	Road
	4	PRIMIER HILL	787	1,279		1,110	199	518		2	0	0	145		
		NBC/ Comm/School	252	623	Wabag Hosp.	544	74	251	23.05.17	1	0	0	64	FM Enga	Road
		Dae Won Hotel Area	534	656	Wabag Hosp.	566	125	267	23.05.17	1	0	0	81	FM Enga	Road
	5	WABAG HOSPITAL	572	1,364		1,622	239	739		3	3	0	100		
		Wabag Hospital	299	398	Wabag Hosp.	575	93	265	22.05.17	1	1	0	37	FM Enga	Road
		PTB Works (Newtown)	273	0	Wabag Hosp.	190	28	88	22.05.17	1	1	0	0	FM Enga	Road
		Hidden Valley		966	Wabag Hosp.	857	118	386	22.05.17	1	1	0	63	FM Enga	Road
	6	NEWTOWN	533	1,228		92	13	41		1	1	0	13		
		Newtown	533	401	Wabag Hosp.										Included under ward 20 Aipus
		Aipus (Urban)		827	Wabag Hosp.	92	13	41	22.05.17	1	1		13	FM Enga	Road
	7	WAGBAG SECONDARY SCH	299	167		308	50	145		1	0	0	0		
		Wagbag secondary	299	167	Wabag Hosp.	308	50	145	22.05.17	1	0	0	0	FM Enga	Road
WABAG RURAL			54,459	52,104		59,460	10,850	27,816		93	9	0	3,565	84	
	1	TUKUSANDA	731			High Altitude - Not Done									
		Tukusanda	336		Tambitanis HC										Road
		Lepatapus	395		Tambitanis HC										Road
	2	AIPANDA	1,044			High Altitude - Not Done									
		Aipanda	804		Tambitanis HC										Road
		Tumbilam	240		Tambitanis HC										Road
	3	TAMBITANIS	584			High Altitude - Not Done									
		Tambitanis	328		Tambitanis HC										Road
		Kuleilam	256		Tambitanis HC										Road
	4	LAKOLAM	1,144			High Altitude - Not Done									
		Lakolam	402		Tambitanis HC										Road
		Aiekelam	691		Tambitanis HC										Road
		Lakolam 2	51		Tambitanis HC										Road
	5	KUBALIS	1,508			High Altitude - Not Done									
		Kubalis	323		Tambitanis HC										Road
		Yakananda	176		Tambitanis HC										Road
		Lakolam 2	192		Tambitanis HC										Road
		Punamalam	128		Tambitanis HC										Road
		Yagenda	222		Tambitanis HC										Road
		Keasa	468		Tambitanis HC										Road
	6	NANDI	1,244	1,603		1,414	266	678		4	0	0	39		
		Nandi	572	737	Sopas	379	62	187	09.05.17	1	0	0	0	Radio Enga	Road/10mins
		Laibridge		NEW	Sopas	507	98	248	09.05.17	1	0	0	25	Radio Enga	Formally under Nandi but due to tribal fight this new village was form
		Tokakamas	393	506	Sopas	274	50	123	09.05.17	1	0	0	14	Radio Enga	Road/trek
		Itaimanda	279	359	Sopas	254	56	120	09.05.17	1	0	0	0	Radio Enga	Trek
	7	SAKARIP	1,046	1,348		1,818	442	860		3	0	0	175		
		Sakarip	255	328	Sopas	645	100	307	09.05.17	1	0	0	0	Radio Enga	Road
		Warumanda	492	634	Sopas	710	126	337	09.05.17	1	0	0	98	Radio Enga	Road
		Waimu	272	350	Sopas	463	216	216	09.05.17	1	0	0	77	Radio Enga	Road
		Sakarip C/sch, A/post, E/Schoo	27	35	Sopas										Included under Sakarip
	8	SOPAS	1,037	1,337		1,568	287	730		4	0	0	0		
		Sopas	95	122	Sopas	617	99	290	14.05.17	1	0	0	0	Radio Enga	Road
		Kepakanda	129	166	Sopas	344	71	159	14.05.17	1	0	0	0	Radio Enga	Road
		Lakalyok	211	272	Sopas	357	67	165	10.05.17	1	0	0	0	Radio Enga	Road
		Lyainlyam	323	417	Sopas	250	50	116	14.05.17	1	0	0	0	Radio Enga	Same as Kepesanda
		Sopas Int. Community School M	279	359	Sopas										Included under Sopas
	9	KIWI	2,712	3,496		1,818	266	845		3	0	0	0		
		Kiwi	697	898	Sopas	806	100	371	10.05.17	1	0	0	0	Radio Enga	trek
		Kemaumale	652	840	Sopas	536	100	255	09.05.17	1	0	0	0	Radio Enga	Road
		Lanemanda	1,043	1,344	Sopas	476	66	219	10.05.17	1	0	0	0	Radio Enga	walk
		Lyagen	321	414	Sopas	0	0	0							Abandoned due to tribal fight
	10	KAIAP	872	1,125		1,135	186	539		2	0	0	0		
		Kaiap	212	274	Sopas	735	115	345	13.05.17	1	0	0	0	Radio Enga	Road

LLG	WARD	VILLAGE	Estimated 2014 Population Based On 2000 Census	Estimated 2017 Population Based On 2014 Census	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
		Andalmale	212	274	Sopas	400	71	194	13.05.17	1	0	0	0	Radio Enga	Road/trek
		Laken	228	294	Sopas										Included under Kaiap
		Kepesanda	219	283	Sopas										Same as LyainLyam
11	KAMAS		1,633	2,105		2,145	390	998		4	0	0	0		
		Kamas	474	611	Sopas	630	100	291	10.05.17	1	0	0	0	Radio Enga	Road/trek
		Pindawale	408	525	Sopas	357	100	165	10.05.17	1	0	0	0	Radio Enga	
		Talubais	410	528	Sopas	665	125	314	10.05.17	1	0	0	0	Radio Enga	Road
		Lyuk	341	440	Sopas	493	65	228	12.05.17	1	0	0	0	Radio Enga	Road
12	KOPEN		1,126	1,245		1,600	277	734		3	0	0	103		
		Kopen	331	647	Wabag Hosp.2	998	193	460	15.05.17	1	0	0	58	FM Enga	Road
		Pakopye	729	448	Wabag Hosp.2	315	38	145	15.05.17	1	0	0	0	FM Enga	Road
		Kopen S/School	66	151	Wabag Hosp.2	287	46	129	15.05.17	1	0	0	45	FM Enga	Road
13	SARI		1,604	1,899		1,979	605	910		2	0	0	196		
		Sari	908	853	Wabag Hosp.2	1,128	165	513	15.05.17	1	0	0	132	FM Enga	Road
		Amala	697	1,046	Wabag Hosp.2	851	440	397	16.05.17	1	0	0	64	FM Enga	Road
14	TORE		1,620	1,728		1,735	293	792		3	0	0	71		
		Tore	835	798	Sopas	1,190	188	545	11.05.17	1	0	0	0	FM Enga	Road
		Majob	413	507	Wabag Hosp.2	378	75	170	16.05.17	1	0	0	42	FM Enga	Road
		Lyano	372	193	Wabag Hosp.2	167	30	77	16.05.17	1	0	0	29	FM Enga	Road
		Kondomanda		161	Wabag Hosp.2										Not covered due to Tribal fight
		Landamanda		70	Wabag Hosp.2										Not covered due to Tribal fight
15	TEREMANDA		1,781	2,781		4,534	861	2,108		4	0	0	380		
		Teremanda	807	1,309	Wabag Hosp.2	2,407	431	1,132	16.05.17	1	0	0	305	FM Enga	Road
		Kwimas	629	659	Wabag Hosp.2	788	156	357	16.05.17	1	0	0	36	FM Enga	Road
		Lepatenges	183	406	Wabag Hosp.2	797	162	372	16.05.17	1	0	0	16	FM Enga	Road
		Pokatu	162	407	Wabag Hosp.2	542	112	247	16.05.17	1	0	0	23	FM Enga	Road
16	AIPINAMANDA		2,524	1,867		3,423	539	1,584		5	0	0	209		
		Aipinamanda	1,146	544	Wabag Hosp.2	203	27	94	20.05.17	1	0	0	27	FM Enga	Road
		Itatep	376	349	Wabag Hosp.2	636	100	292	20.05.17	1	0	0	28	FM Enga	Road
		Tolem	268	84	Wabag Hosp.2	227	50	105	20.05.17	1	0	0	49	FM Enga	Road
		Diviteges	544	666	Wabag Hosp.2	2,160	331	1,002	20.05.17	1	0	0	90	FM Enga	Road
		Mangapos	190	225	Wabag Hosp.2	197	31	91	20.05.17	1	0	0	15	FM Enga	Road
17	LAKEMANDA		2,717	2,090		2,645	461	1,351		3	0	0	26		
		Lakemanda	760	1,218	Wabag Hosp.2	1,443	250	677	19.05.17	1	0	0	0	FM Enga	Road
		Waipu	705	636	Wabag Hosp.2	810	150	493	19.05.17	1	0	0	19	FM Enga	Road
		Pandam	987	0	Wabag Hosp.2	392	61	181	19.05.17	1	0	0	7	FM Enga	Road
		Opeam	265	236	Wabag Hosp.2										Covered under Waipu
18	SAKALIS		1,918	2,053		2,704	499	1,260		3	1	0	335		
		Sakalis	677	516	Wabag Hosp.2	467	100	226	22.05.17	1	1	0	3	FM Enga	Road
		Sangurap	888	988	Wabag Hosp.2	1,412	249	653	22.05.17	1	0	0	236	FM Enga	Road
		Sagasambes	166	549	Wabag Hosp.2	825	150	381	22.05.17	1	0	0	96	FM Enga	Road
		Yakale	187	0	Wabag Hosp.2										Covered under Sagasambes
19	KEAS		1,616	2,552		4,342	648	1,942		2	2	0	418		
		Keas	765	829	Wabag Hosp.2	1,606	250	685	21.05.17	1	1	0	77	FM Enga	Road
		Pawas	851	1,724	Wabag Hosp.2	2,736	398	1,257	21.05.17	1	1	0	341	FM Enga	Road
20	IRELYA		2,954	3,962		4,780	736	2,184		5	3	0	231		
		Irellya	791	1,108	Wabag Hosp.2	1,560	225	707	18.05.17	1	1	0	102	FM Enga	Road
		Aipus	1,296	1,549	Wabag Hosp.2	1,915	294	877	22.05.17	1	1	0	23	FM Enga	Road
		Imabus	153	522	Wabag Hosp.2	320	61	147	18.05.17	1	0	0	20	FM Enga	Survey Book lost
		Lubulubus	548	664	Wabag Hosp.2	650	106	299	18.05.17	1	1	0	63	FM Enga	Road
		Irellya T/up Mission /sch & A/P	166	119	Wabag Hosp.2	335	50	154	18.05.17	1	0	0	23	FM Enga	Road
21	WAKUMALE		628	1,252		1,560	211	701		2	0	0	127		
		Wakumale	540	995	Wabag Hosp.2	1,301	161	581	19.05.17	1	0	0	95	FM Enga	Road
		Waeamu	88	257	Wabag Hosp.2	259	50	120	18.05.17	1	0	0	32	FM Enga	Road
22	LENKI		3,468	3,589		4,477	891	2,152		4	1	0	454		
		Lenki	1,401	1,855	Wabag Hosp.2	2,259	444	1,131	18.05.17	1	1	0	218	FM Enga	Road
		Pipi	652	413	Wabag Hosp.2	622	135	287	18.05.17	1	0	0	83	FM Enga	Road
		Kepakanda	767	819	Wabag Hosp.2	865	162	397	18.05.17	1	0	0	77	FM Enga	Road
		Ipalemanda	647	501	Wabag Hosp.2	731	150	337	18.05.17	1	0	0	76	FM Enga	Road
23	AINUMANDA		1,418	1,897		760	167	349		2	0	0	52		
		Ainumanda	678	486	Wabag Hosp.2	234	58	108	17.05.17	1	0	0	18	FM Enga	Road
		Tumbilam	740	1,174	Wabag Hosp.2	526	109	241	17.05.17	1	0	0	34	FM Enga	Road
		Lamand		237	Wabag Hosp.2										Fighting zone
24	RAKAMANDA		1,119	864		1,036	159	477		2	1	0	96		
		Rakamanda	790	354	Wabag Hosp.2	723	99	332	17.05.17	1	1	0	71	FM Enga	Road
		Mugutesa	329	510	Wabag Hosp.2	313	60	145	17.05.17	1	0	0	25	FM Enga	Road
25	YOKOMANDA		1,478	1,002		1,305	297	603		3	1	0	125		
		Yokomanda	328	189	Wabag Hosp.2	184	50	82	17.05.17	1	0	0	18	FM Enga	Road
		Wanumanda	506	338	Wabag Hosp.2	531	129	248	17.05.17	1	1	0	89	FM Enga	Road
		Porotop	644	474	Wabag Hosp.2	590	118	273	17.05.17	1	0	0	18	FM Enga	Road
26	IMI		2,689	2,316		2,037	392	943		4	0	0	81		
		Imi	628	514	Wabag Hosp.2	627	100	291	17.05.17	1	0	0	10	FM Enga	Road
		Makapaumanda	1,017	666	Wabag Hosp.2	279	62	129	17.05.17	1	0	0	4	FM Enga	Road
		Naputes	526	726	Wabag Hosp.2	724	147	336	17.05.17	1	0	0	54	FM Enga	Road
		Watepitu	517	410	Wabag Hosp.2	407	83	187	17.05.17	1	0	0	13	FM Enga	Road
27	WEE		1,067	406		911	106	430		2	0	0	9		
		Wee	657	406	Lakopenda HC	359	56	169	16.05.17	1	0	0	9	FM Enga	Road
		Yokota (Piakayi)	410	0	Lakopenda HC	552	50	261	12.05.17	1	0	0	0	FM Enga	Road/Trek
28	BIRIP		3,371	3,695		4,473	726	2,127		13	0	0	242		
		Lyagimaus	1,141	482	Lakopenda HC	386	76	185	16.05.17	1	0	0	7	FM Enga	Road

LLG	WARD	VILLAGE	Estimated 2014 Population Based On 2000 Census	Estimated 2017 Population Based On 2014 Census	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
		Apumale	1,229	647	Lakopenda HC	1,115	142	530	16.05.17	1	0	0	39	FM Enga	Road
		Lumanda	1,001	230	Lakopenda HC	361	43	170	16.05.17	1	0	0	7	FM Enga	Road
		Leoleo		521	Lakopenda HC	837	150	399	16.05.17	1	0	0	78	FM Enga	Road
		Aelyange		290	Lakopenda HC	186	36	87	16.05.17	1	0	0	0	FM Enga	Road
		Paleoambos		167	Lakopenda HC	159	36	77	16.05.17	1	0	0	0	FM Enga	Road
		Sauwamanda		210	Lakopenda HC	123	22	58	16.05.17	1	0	0	12	FM Enga	Road
		Tikapiin		376	Lakopenda HC	460	86	216	16.05.17	1	0	0	40	FM Enga	Road
		Works Compound		107	Lakopenda HC	57	10	30	16.05.17	1	0	0	0	FM Enga	Road
		Lutheran Seminary		60	Lakopenda HC	59	8	28	16.05.17	1	0	0	3	FM Enga	Road
		Birip Primary School		62	Lakopenda HC	354	50	167	16.05.17	1	0	0	32	FM Enga	Road
		Kens		197	Lakopenda HC	70	17	33	16.05.17	1	0	0	9	FM Enga	Road
		Banakam		346	Lakopenda HC	306	50	147	16.05.17	1	0	0	15	FM Enga	Road
29	AKOM		1,943	1,168		1,415	275	673		2	0	0	60		
		Akom	1,471	1,168	Lakopenda HC	1,156	225	549	15.05.17	1	0	0	60	FM Enga	Road
		Kopemale	473	0	Lakopenda HC	259	50	124	12.05.17	1	0	0	0	FM Enga	Road/Trek
30	LUKIRAP		1,805	1,346		1,137	261	546		2	0	0	24		
		Lukirap	944	684	Lakopenda HC	571	124	274	13.05.17	1	0	0	13		Road/Trek
		Takeanda	861	662	Lakopenda HC	566	137	272	13.05.17	1	0	0	11		Road/Trek
31	WAIMERIMANDA		1,970	1,743		1,529	359	736		4	0	0	61		
		Waimerimanda	273	349	Lakopenda HC	328	83	157	13.05.17	1	0	0	20		Trek
		Peaulam	1,331	867	Lakopenda HC	631	139	305	13.05.17	1	0	0	27		Trek
		Munimanda	114	187	Lakopenda HC	217	50	104	13.05.17	1	0	0	6		Trek
		Sangane	251	339	Lakopenda HC	353	87	170	13.05.17	1	0	0	8		Trek
32	LAKOPENDA		1,240	1,243		1,180	250	564		3	0	0	51		
		Lakopenda	407	371	Lakopenda HC	385	100	184	13.05.17	1	0	0	5		Road
		Togemas	401	505	Lakopenda HC	419	100	201	13.05.17	1	0	0	46		Road/Trek
		Opene Community School	433	366	Lakopenda HC	376	50	179	13.05.17	1	0	0	0		Road
33	YAILINGIS		848												
		Yailingis	393		Tambitanis HC										Road
		Yumbilam	456		Tambitanis HC										Road
	YOKOTA														
		Yokota		520	Tambitanis HC										Road
		Kopemale		267	Tambitanis HC										Road
			0												
		MARAMUNI RURAL	7,822	10,142		9,225	1,780	4,584		20	0	0	1,263	20	
1	BIAK		942	1,278		1,077	211	538		3	0	0	203		From Pasalagus Airstrip
		Biak	427	577	PHO	531	100	265	31.05.17	1	0	0	92	FM Enga	1 Day Trek
		Pai	392	497	PHO	320	61	160	02.06.17	1	0	0	61	FM Enga	1 Day Trek
		Emo	123	204	PHO	226	50	113	01.06.17	1	0	0	50	FM Enga	1 Day Trek
2	NET NAI		178	295		219	46	109		1	0	0	14		
		Kotkot	178	295	PHO	219	46	109	01.06.17	1	0	0	14	FM Enga	3 Day Trek
3	PASALAGUS		1,210	1,216		1,895	320	949		2	0	0	235		
		Pasalagus	906	709	PHO	686	141	343	01.06.17	1	0	0	62	FM Enga	1 Day Trek
		Pasalagus Stn	305	507	PHO	1,209	179	606	01.06.17	1	0	0	173	FM Enga	1 Day Trek
4	WALEP		657	602		565	100	282		1	0	0	100		
		Walep (Ketai)	657	602	PHO	565	100	282	31.05.17	1	0	0	100	FM Enga	1 Day Trek
5	TONGARI		528	1,143		909	205	454		2	0	0	121		
		Tongari	400	779	PHO	547	118	273	31.05.17	1	0	0	99	FM Enga	1 Day Trek
		Naleaka	128	364	PHO	362	87	181	01.06.17	1	0	0	22	FM Enga	1 Day Trek
6	KAIYAMATOK		689	925		581	122	290		1	0	0	40		
		Kaiyamatok	689	925	PHO	581	122	290	01.06.17	1	0	0	40	FM Enga	1 Day Trek
7	WAGALOGEN		249	299		334	50	140		1	0	0	50		
		Wagalogen	249	299	PHO	334	50	140	02.06.17	1	0	0	50	FM Enga	2 Day Trek
8	NELYAKU		337	501		275	70	138		1	0	0	0		
		Nelyaku	337	501	PHO	275	70	138	31.05.17	1	0	0	0	FM Enga	1 Day Trek
9	ILYA		225	240		267	62	133		1	0	0	57		
		Ilya	225	240	PHO	267	62	133	01.06.17	1	0	0	57	FM Enga	1 Day Trek
10	POTEAKA		723	634		542	100	272		1	0	0	0		
		Poteaka	723	634	PHO	542	100	272	01.06.17	1	0	0	0	FM Enga	1 Day Trek
11	WARAKOM		261	667		567	111	282		1	0	0	111		
		Warakom	261	667	PHO	567	111	282	02.06.17	1	0	0	111	FM Enga	1 Day Trek
12	POKALE		1,519	1,969		1,681	311	840		3	0	0	271		
		Pokale	823	550	PHO	449	100	225	31.05.17	1	0	0	100	FM Enga	1 Day Trek
		Malandu	695	974	PHO	811	150	405	31.05.17	1	0	0	110	FM Enga	1 Day Trek
		Witinana		444	PHO	421	61	210	31.05.17	1	0	0	61	FM Enga	1 Day Trek
13	PENALE		305	373		313	72	157		2	0	0	61		
		Kupin	146	131	PHO	88	22	44	03.06.17	1	0	0	20	FM Enga	3 Day Trek
		Namara	159	242	PHO	225	50	113	03.06.17	1	0	0	41	FM Enga	3 Day Trek

ANNEX FIVE

ENGA PROVINCE
WAPENAMANDA DISTRICT POPULATION 2017
LLIN DISTRIBUTION SUMMARY SHEET

LLG	WARD	VILLAGE	Estimated 2014 Population Based On 2000 Census	Estimated 2017 Population Based On 2014 Census	Health Centre	Population Surveyed	House Holds Surveyed	Nets Issued	Date Of Distribution	Digicel	Bmobile	Citifon	Houses With Radios	Radio Networks	Comment
WAPENAMANDA			62,934	62,934		60,154	12,250	29,352		111	19	0	3399	67	
WAPENAMANDA RURAL			44,595	43,955		40,107	8,146	19,656		76	19	0	3119	60	
1	AWAS		1,580	976		782	182	383		2	0	0	113		
		Awias	481	287	Yalis HC	365	89	175	14.05.17	1	0	0	48	KBM	Road/3 Hr Trek
		Wainapakam	1,099	689	Yalis HC	417	93	208	11.04.17	1	0	0	65	KBM	Road/3 Hr Trek
2	TUPIKORES		1,271	1,477		1,253	283	613		2	0	0	220		
		Tupikores	1,030	1,211	Yalis HC	1,013	236	495	14.05.17	1	0	0	194	KBM	Road
		Malimanda	241	267	Yalis HC	240	47	118	14.05.17	1	0	0	26	KBM	Road
3	AIPAND		582	378		503	99	247		1	0	0	82		
		Aipand	387	378	Yalis HC	503	99	247	14.05.17	1	0	0	82	KBM	Road
		Kaimanda	195	0	Yalis HC										Non Existant
4	KAIMANDA		596	677		522	128	253		2	0	0	64		
		Kaimanda	248	362	Yalis HC	308	79	150	13.05.17	1	0	0	30	KBM	Road/2 Hr Trek
		Yomo	348	315	Yalis HC	214	49	103	13.05.17	1	0	0	34	KBM	Road/2 Hr Trek
5	TOMBES		997	909		1,026	195	502		3	0	0	90		
		Tombes	483	504	Yalis HC	205	55	102	13.05.17	1	0	0	36	KBM	Road
		Aparapalus	514	405	Yalis HC	463	76	226	13.05.17	1	0	0	42	KBM	Road
		Konjamanda		NEW	Yalis HC	358	64	174	13.05.17	1	0	0	12	KBM	Road
6	YALIS		1,644	1,705		1,537	347	734		3	0	0	211		
		Yalis	844	922	Yalis HC	901	199	430	12.05.17	1	0	0	109	KBM	Road
		Konjanmanda	545	565	Yalis HC	407	98	193	12.05.17	1	0	0	53	KBM	Road
		Isipos	255	218	Yalis HC	229	50	111	12.05.17	1	0	0	49	KBM	Road
7	YUK		825	803		783	175	393		1	0	0	34		
		Yuk	825	803	Yalis HC	783	175	393	12.05.17	1	0	0	34	KBM	Road/2 Hr Trek
8	ALUMBALAM		574	560		515	107	264		2	2	0	0		
		Alumbalam	186	182	mbisanda H	188	36	94	18.05.17	1	1	0	0	NBC	Trek
		Imalemanda	388	378	mbisanda H	327	71	170	18.05.17	1	1	0	0	NBC	Trek
9	ELYAKANDA		599	656		642	148	346		1	1	0	0		
		Elyakanda	599	656	mbisanda H	642	148	346	17.05.17	1	1	0	0	NBC	Trek
10	TAKAEPOS		1,430	1,621		1,406	360	771		2	2	0	39		
		Takaepos	964	1,219	mbisanda H	1,092	265	566	18.05.17	1	1	0	0	NBC	Road
		Beta	467	401	mbisanda H	314	95	205	18.05.17	1	1	0	39	NBC	Road
11	MAMBISANDA		2,227	1,872		1,932	355	956		3	1	0	0		
		Mambisanda	1,151	832	mbisanda H	1,046	184	523	17.05.17	1	0	0	0	NBC	Road
		Yalis	744	819	mbisanda H	626	131	306	18.05.17	1	0	0	0	NBC	Road
		Mambisanda District Hos	333	222	mbisanda H	260	40	127	18.05.17	1	1	0	0	NBC	Road
12	KUMBASKUM		1,463	1,800		1,364	239	679		2	1	0	161		
		Kumbaskam	1,007	1,259	mbisanda H	1,064	170	528	18.05.17	1	1	0	54	NBC	Road
		Kupiapos	456	541	mbisanda H	300	69	151	18.05.17	1			107	NBC	Road
13	WAETES		986	721		1,027	125	507		2	2	0	10		
		Waetes	554	442	mbisanda H	575	39	282	13.05.17	1	1	0	10	NBC	Road
		Komdamanda	433	278	mbisanda H	452	86	225	17.05.17	1	1	0	0	NBC	Road
14	LAUANDA		1,699	1,396		1,437	264	674		2	0	0	108		
		Lauanda	1,215	936	akopenda H	911	184	428	15.05.17	1	0	0	63		Road
		Pumbu	484	460	akopenda H	526	80	246	15.05.17	1	0	0	45		Road
15	PINA		1,959	1,681		1,393	279	654		3	0	0	74		
		Pina	683	636	akopenda H	570	99	268	15.05.17	1	0	0	3		Road
		Milates	706	609	akopenda H	551	100	257	15.05.17	1	0	0	29		Road
		Aiyalpos	570	436	akopenda H	272	80	129	15.05.17	1	0	0	42		Road
16	YAIBOS		2,002	2,433		2,234	418	1,046		4	0	0	325		
		Yaibos	837	772	Yaibos HC	763	150	346	13.05.17	1	0	0	82	NBC & FM	Road
		Aipipas	923	1,087	Yaibos HC	985	183	467	13.05.17	1	0	0	165	NBC & FM	Road
		Yaibos Mission /Sch, Hc &	181	278	Yaibos HC	264	43	126	13.05.17	1	0	0	43	NBC & FM	Road
		Amapyaka Int/School	61	297	Yaibos HC	222	42	107	13.05.17	1	0	0	35	NBC & FM	Road
17	OPAKPOS		1,459	1,452		1,291	272	612		2	0	0	177		
		Opakpos	476	634	Yaibos HC	510	100	243	13.05.17	1	0	0	100	NBC & FM	Road
		Maremanda	983	818	Yaibos HC	781	172	369	13.05.17	1	0	0	77	NBC & FM	Road
18	PAUSA		2,279	1,783		1,696	327	806		2	0	0	244		
		Pausa	1,630	1,354	Yaibos HC	1,468	277	696	13.05.17	1	0	0	195	NBC & FM	Road
		Elokmas	649	428	Yaibos HC	228	50	110	13.05.17	1	0	0	49	NBC & FM	Road
19	KUIMAMANDA		1,727	2,376		2,204	473	1,056		3	0	0	288		
		Kuimamanda	744	767	Yaibos HC	614	149	289	12.05.17	1	0	0	54	NBC & FM	Road
		Warumanda	179	711	Yaibos HC	693	136	326	12.05.17	1	0	0	101	NBC & FM	Road
		Lamdaimanda	804	898	Yaibos HC	897	188	441	12.05.17	1	0	0	133	NBC & FM	Road
20	KANJALAPOS		267	716		777	184	365		1	0	0	180		
		Kondmanda	267	716	Yaibos HC	777	184	365	12.05.17	1	0	0	180	NBC & FM	Road
21	POMBAPUS		1,630	2,268		3,244	596	1,521		7	0	0	474		
		Pombapus	599	419	Yaibos HC	593	100	279	12.05.17	1	0	0	16	NBC & FM	Road
		Mukrumanda	401	353	Yaibos HC	342	98	161	12.05.17	1	0	0	97	NBC & FM	Road
		Lokaipolos	382	197	Yaibos HC	497	90	228	12.05.17	1	0	0	90	NBC & FM	Road
		Talyokos	113	844	Yaibos HC	1,352	242	635	12.05.17	1	0	0	205	NBC & FM	Road
		Pombapus Sch, Mss, V/O	34	257	Yaibos HC	201	23	95	12.05.17	1	0	0	23	NBC & FM	Road
		C.i.s.	101	198	Yaibos HC	96	15	45	12.05.17	1	0	0	15	NBC & FM	Road
		Kiguim		NEW	Yaibos HC	163	28	78	12.05.17	1	0	0	28	NBC & FM	(New Villge) Road

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22	KANAMANDA		964	885		659	149	321		1	0	0	18		
		Kanamanda	964	885	Yalis HC	659	149	321	15.05.17	1	0	0	18	KBM	Road
23	MONDOP		1,252	1,296		953	210	470		2	0	0	134		
		Mondop	731	707	Yalis HC	558	110	272	15.05.17	1	0	0	87	KBM	Road
		Newtown	521	590	Yalis HC	395	100	198	15.05.17	1	0	0	47	KBM	Road
24	PAUSA		1,376	1,757		1,209	263	638		1	1	0	18		
		Pausa	1,376	1,757	mbisanda H	1,209	263	638	17.05.17	1	1	0	18	NBC	Road
25	KUMBI		730	1,123		838	120	420		1	1	0	20		
		Kumbi	730	1,123	mbisanda H	838	120	420	19.05.17	1	1	0	20	NBC	Road/2 Hr Trek
26	YARAMANDA		1,088	1,484		1,506	225	646		1	1	0	23		
		Yaramanda	1,088	1,484	mbisanda H	1,506	225	646	17.05.17	1	1	0	23	NBC	Road
27	TAPENDA		1,778	1,233		1,404	300	705		3	1	0	12		
		Tapenda	730	566	mbisanda H	446	100	223	17.05.17	1	0	0	0	NBC	Road
		Kubas	819	541	mbisanda H	648	150	327	17.05.17	1	0	0	12	NBC	Road
		Tapenda High School	229	126	mbisanda H	310	50	155	17.05.17	1	1	0	0	NBC	Road
28	YAKAEDIS		947	1,046		503	161	312		2	0	0	0		
		Yakaedis	450	570	Unda HC	274	101	205	18.05.17	1	0	0	0		Road
		Pelemanda	497	476	Unda HC	229	60	107	17.05.17	1	0	0	0		Road
29	UNDA		1,711	2,042		1,139	239	579		3	0	0	0		
		Unda	664	854	Unda HC	507	99	254	18.05.17	1	0	0	0		Road
		Aiakalis	693	1,072	Unda HC	558	125	289	18.05.17	1	0	0	0		Road
		Unda H/c & Primary Scho	354	116	Unda HC	74	15	36	17.05.17	1	0	0	0		Road
30	ANJI		1,803	1,329		1,140	218	546		2	0	0	0		
		Anji	1,065	727	Unda HC	882	150	415	18.05.17	1	0	0	0		Road
		Tupyang	738	602	Unda HC	258	68	131	17.05.17	1	0	0	0		Road
31	NANAI		1,265	694		396	100	208		1	0	0	0		
		Nanai	1,265	694	Unda HC	396	100	208	17.05.17	1	0	0	0		Road
32	WALYA		1,204	742		898	216	496		3	0	0	0		
		Walya	1,182	579	Unda HC	602	150	300	17.05.17	1	0	0	0		Road
		Kumul Lodge	21	62	Unda HC	102	40	110	19.05.17	1	0	0	0		Road
		Langan		101	Unda HC	194	26	86	17.05.17	1	0	0	0		
33	IPIA		1,824	1,052		853	201	425		3	3	0	0		
		Ipia	1,145	505	mbisanda H	416	88	206	15.05.17	1	1	0	0	NBC	Trek
		Apamas		315	mbisanda H	257	67	128	16.05.17	1	1	0	0	NBC	Trek
		Yambalipos	679	232	mbisanda H	180	46	91	16.05.17	1	1	0	0	NBC	Road/3 HRS Trek
34	WAPENAMANDA URBAN		858	1,012		1,041	188	508		3	3	0	0		
		Lai Riverside	333	0	penamanda	287	50	140	17.05.17	1	1	0	0	NBC	Road
		Road "a" - Airstrip	169	564	penamanda	546	100	267	18.05.17	1	1	0	0	NBC	Road
		District Office	205	385	penamanda UC										Included Under A Air Strip
		Market - Bus Stop	152	62	penamanda	208	38	101	18.05.17	1	1	0	0	NBC	Road
			0	0											
TSAK RURAL			18,339	18,980		20,047	4,104	9,696		35	0	0	280	7	
1	PIPITES		919	858		889	200	424		2	0	0	0		
		Pipites	474	495	Pumakos HC	444	100	211	14.05.17	1	0	0	0		Road
		Tupaposa	445	363	Pumakos HC	445	100	213	14.05.17	1	0	0	0		Road
2	SAPOS		685	813		1,016	192	491		1	0	0	0		
		Sapos	685	813	Pumakos HC	1,016	192	491	14.05.17	1	0	0	0		Road
3	KOMAMANDA		1,262	1,373		1,466	275	705		2	0	0	0		
		Komamanda	465	647	Pumakos HC	646	106	285	14.05.17	1	0	0	0		Road
		Angimanda	797	726	Pumakos HC	820	169	420	14.05.17	1	0	0	0		Road
4	YOGOS		1,341	1,359		2,311	300	894		1	0	0	0		
		Yogos	1,341	1,359	Pumakos HC	2,311	300	894	13.05.17	1	0	0	0		Road
5	TANGAIMANDA		1,120	1,700		1,794	375	877		3	0	0	0		
		Tangaimanda	477	686	Pumakos HC	798	149	379	13.05.17	1	0	0	0		Road
		Wambus	336	1,014	Pumakos HC	748	177	373	14.05.17	1	0	0	0		Road
		Makukam	307	0	Pumakos HC	248	49	125	13.05.17	1	0	0	0		Road
6	KIANGAPUMANDA		893	835		1,114	250	517		2	0	0	0		
		Kiangapumanda	400	551	Pumakos HC	702	150	330	13.05.17	1	0	0	0		Road
		Kembmanda	494	284	Pumakos HC	412	100	187	14.05.17	1	0	0	0		Road
7	PUMAKOS		1,144	1,217		988	260	563		2	0	0	0		
		Pumakos	724	813	Pumakos HC	786	199	402	13.05.17	1	0	0	0		Road
		Yakatilenk	420	405	Pumakos HC	202	61	161	13.05.17	1	0	0	0		Road
8	RAIAGAM		1,008	958		782	178	500		2	0	0	0		
		Raiagam	589	550	Pumakos HC	297	69	251	14.05.17	1	0	0	0		Road
		Konemanda	420	408	Pumakos HC	485	109	249	13.05.17	1	0	0	0		Road
9	ALUMANDA		722	712		762	150	368		2	0	0	0		
		Alumanda	586	489	Pumakos HC	579	100	274	14.05.17	1	0	0	0		Road
		Sakapmanda	135	223	Pumakos HC	183	50	94	15.05.17	1	0	0	0		Road
10	POKETAMANDA		802	718		939	199	485		2	0	0	0		
		Poketamanda	718	591	Pumakos HC	737	150	377	14.05.17	1	0	0	0		Road
		Andinamanda	83	127	Pumakos HC	202	49	108	13.05.17	1	0	0	0		Road
11	IPALI		564	712		592	108	297		2	0	0	0		
		Ipali	376	712	Topak HC	322	58	158	13.05.17	1	0	0	0		Road
		Apwa (Koneyanda)	188	0	Topak HC	270	50	139	13.05.17	1	0	0	0		Road
12	IMANGAPOS		1,175	1,299		1,169	235	580		2	0	0	0		
		Sangurap	724	904	Topak HC	1,037	200	522	15.05.17	1	0	0	0		Road
		Arumanda	451	395	Topak HC	132	35	58	15.05.17	1	0	0	0		Road
13	TSAPONDIS		1,531	1,543		1,606	331	748		3	0	0	0		
		Tsapondis	322	270	Topak HC	285	52	143	17.05.17	1	0	0	0		Road
		Maeyokomanda	405	555	Topak HC	501	137	228	17.05.17	1	0	0	0		Road

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		Yambitesa	804	718	Topak HC	820	142	377	16.05.17	1	0	0	0		Topak HC Here
14	PITIPAIS		1,046	1,050		905	214	454		1	0	0	0		
		Pitipais	1,046	1,050	Topak HC	905	214	454	16.05.17	1	0	0	0		Road/30 Min Trek
15	WANIMAS		744	981		644	137	296		1	0	0	0		
		Wanimas	744	981	Topak HC	644	137	296	15.05.17	1	0	0	0		10 min trek
16	LONDO		2,019	1,526		1,589	344	764		4	0	0	109		
		Londo	391	420	ngemanda	415	100	198	16.05.17	1	0	0	59	KBM	Road
		Aikos	409	378	ngemanda	483	94	228	16.05.17	1	0	0	22	KBM	Road
		Lanemanda	610	327	ngemanda	252	50	120	16.05.17	1	0	0	27	KBM	Road
		Angurumanda	609	401	ngemanda	439	100	218	16.05.17	1	0	0	1	KBM	Road
17	KWIA		1,363	1,328		1,481	356	733		3	0	0	171		
		Usk	614	520	ngemanda	528	124	262	15.05.17	1	0	0	11	KBM	Road
		Kwia	750	807	ngemanda	745	182	375	15.05.17	1	0	0	154	KBM	Road
		Sakalem		NEW	ngemanda	208	50	96	15.05.17	1	0	0	6	KBM	Road / Trek