

Semi-annual Report

January 2020

## **PNG: HIGHLANDS REGION ROAD IMPROVEMENT INVESTMENT PROGRAM (HRRIIP) – TRANCHE 3**

### **NIPA-MUNIHU ROAD SUB-PROJECT**

Prepared by Highlands Road Management Group (HRMG), Department of Works for the Asian Development Bank

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## **ENVIRONMENTAL MONITORING REPORT**

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Semi-Annual Report (July-December 2019)

### **PNG: HIGHLANDS REGION ROAD IMPROVEMENT INVESTMENT PROGRAM (TRANCHE 3)**



#### **Nipa-Munihu Road Subproject**

**CSTB# 3531**

**Submission date: 31 January 2020**

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## ABBREVIATIONS

ADB	-	Asian Development Bank
AIDS	-	Acquired Immune Deficiency Syndrome
AP	-	Affected People
CEMP	-	Construction Environment Management Plan
CRO	-	Community Relations Officer
PSC	-	Project Supervision Consultant
DBST	-	Double Bitumen-layer Surface Treatment
DC	-	Design Consultant
DOW	-	Department of Work
EA	-	Executive Agency
EMP	-	Environmental Management Plan
EO	-	Environmental Officer
ESSU	-	Environment and Social Safeguards Unit
FPM	-	Field Project Manager
GOPNG	-	Government of Papua New Guinea
GRC	-	Grievance Redress Committee
HCRN	-	Highlands Region Core Road Network
HIV	-	Human Immunodeficiency Virus
HRMG	-	Highlands Road Management Group
HRRIIP	-	Highlands Region Road Improvement Investment Program
IA	-	Implementation Agency
IEE	-	Initial Environment Examination
ISS	-	International Safeguards Specialist
LLG	-	Local Level Government
MFF	-	Multi-tranche Financing Facility
MOA	-	Memorandum of Agreement
NOV	-	Notice of Violation
NRA	-	National Road Authority
NTU	-	Nephelometric Turbidity Unit
PH	-	Hydrogen Ion
PNG	-	Papua New Guinea
PRO	-	Public Relations Officer
PWM	-	Provincial Works Manager
ROW	-	Right of Way
RP	-	Resettlement Plan
SHP	-	Southern Highland Province
SIS	-	Socio-economic Impact Study
SPS	-	Safeguard Policy Statement
STDs	-	Sexual Transmitted Diseases
TOR	-	Terms of Reference

**FACT SHEET:**

<b>Loan</b>	ADB Loan: 3404/3408 and Grant 0485 PNG
<b>Project Number</b>	40173-044
<b>Contract Number</b>	CSTB 3531
<b>Subproject</b>	Nipa-Munihu Road Subproject
<b>Executing Agency</b>	The Department of Works (DOW) is the executing agency for the Highlands Region Road Improvement Investment Program (HRRIP). It has overall responsibility to manage the planning, implementation and monitoring for all road improvement works including environmental management and environmental compliance monitoring. It also includes the acquisition of use rights for additional land to implement HRRIP subprojects, as well as compensation for damages on project-affected land DOW is also responsible for reporting to ADB and the recruitment of the organization to conduct independent monitoring
<b>Implementing Agency/Unit</b>	<p>The DOW will also be the Implementing Agency for the road improvement works. The DOW has delegated to the Highlands Road Management Group (HRMG), the responsibility to carry out the planning, implementation and monitoring for environmental management and environmental compliance monitoring, land acquisition and/or resettlement activities, as required. The more relevant delegated responsibilities include the following.</p> <p><b>Prior to the commencement of civil works:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Submit and indorse environmental assessments required for regulatory approval of the CEPA and require the Contractor to obtain approval, e.g., environmental clearance, environmental permit or permits from other statutory authorities as required by the Government.</li> <li><input type="checkbox"/> Ensure that all regulatory clearances for the subproject are obtained from the relevant government authorities and are submitted promptly to ADB.</li> <li><input type="checkbox"/> Ensure that the EMP is updated based on detailed design and included in the bidding document of the subproject and that all bidding Contractors have access to the environmental assessments and EMP.</li> <li><input type="checkbox"/> Ensure that the EMP and all required mitigation measures during construction, including conditions stipulated in the CEPA's clearance or environmental permit, are included in BCD with requirements to update the EMP in response to any unexpected impacts and</li> <li><input type="checkbox"/> That all selected Contractors have agreed to implement in full the requirements of environmental mitigation measures prescribed in the EMP</li> </ul>

	<ul style="list-style-type: none"> <li><input type="checkbox"/> Provide training as required to HRMG in Mt Hagen and Contractor.</li> <li><input type="checkbox"/> Receive environmental safeguard clearance on subproject(s).</li> <li><input type="checkbox"/> Provide training to Contractor prior to preparation of CEMP, safeguards requirements of ADB and regulatory requirements of CEPA.</li> <li><input type="checkbox"/> Approve CEMP for the subproject, after being cleared by PSC.</li> </ul> <p><b>During the implementation of civil works:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Ensure that the CEMP including all proposed mitigation measures and monitoring and relevant provisions of the environmental assessments is updated as required,</li> <li><input type="checkbox"/> Conduct environmental management and compliance monitoring on a monthly basis in cooperation with the PSC.</li> <li><input type="checkbox"/> Review and assess the Contractor's monthly environmental monitoring report and compliances as contained in the CEMP.</li> <li><input type="checkbox"/> Assist the Engineer in the compliance of the submitted CEMP.</li> <li><input type="checkbox"/> Prepare the quarterly and semi-annual reports in cooperation with the PSC for submission to DOW and ADB.</li> </ul>
<b>Coverage of the Semi-Annual Environmental Monitoring Report</b>	July to December 2019

## EXECUTIVE SUMMARY

This semi-annual environmental monitoring report covered the period from July to December 2019. However, the contractor didn't work from October to December 2019 due to non-payment of IPC by Government of PNG. This monitoring was carried out by the Department of Works (DOW) through the Highlands Road Management Group (HRMG). The monitoring results will be communicated to ADB through this report.

The Nipa-Munihi sub-project road is one of the 4 sub-projects of Tranche 3 of the Highlands Region Roads Improvement Investment Program, an ADB financed road program. The sub-project is covered by CSTB contract # 3531 which was entered into by the Independent State of Papua New Guinea represented by the DOW and China Overseas Engineering Company LTD (COVEC China).

The project civil works has commenced in December 11, 2017 with the mobilization of the Contractor. The construction period of the project is 24 months. The Long-Term Performance Based Maintenance Services is 60 months from the issuance of the Performance Certificate for the Improvement Work after project completion.

The CEMP, Occupational Health and Safety, and Traffic Management Plans were submitted and approved by DOW-ESSU and cleared. The other associate plans have also been approved. These plans will be the guide for the contractor to follow and implement the road project. Failure to comply with these plans may result in the issuing of the notice of violation (NOV). The application of Notices of Violation should be an option that needs PSC and HRMG vigilance to implement best practices in environmental management. The implementation of the CEMP and the associated plans should be done, and a checklist of the monthly monitoring requirements needs to be revised to accommodate the revisions made on these plans.

The PSC and HRMG has provided close monitoring on environmental issues including unwarranted disposition of spoils, better leaking sewages, employment of women and worker's privileges and rights were raised with the contractors. Public consultations were conducted from time to time ensuring that affected people were properly informed regarding the benefits of the road project.

The review by PSC and HRMG of the Quarry Management Plans is a priority during this period, considering the environmental impact of these activities. The use of maps to ensure that environmental best practices in soil erosion and sedimentation management are recommended. There is a need to revise and submit Quarry Management Plan for new quarries. Few solid rock quarries need quarry permit from the office of Conservation Environment Protection Authority (CEPA) to operate. The contractor yet to secure the quarry permit.



## **1.0 INTRODUCTION**

### **1.1 Background**

The Highlands Region of Papua New Guinea (PNG), comprising the Provinces of Western Highlands, Jiwaka, Southern Highlands, Hela, Eastern Highlands, Enga and Chimbu, is a major contributor to the PNG economy through its agricultural production and mineral resources. A well-maintained road network is essential to facilitate the movement of people, goods and services. The Government of PNG (GoPNG) has made significant investments in improving the road network but a lack of maintenance has resulted in the deterioration of the roads such that the Highlands Core Road Network (HCRN) is now in poor condition.

In order to address the deterioration of the HCRN, there is a clear need to: (i) implement a program of regular maintenance on all HCRN roads that are in good condition; and (ii) improve those roads that are in poor condition and (iii) ensure that maintenance begins on those roads as soon as the improvement works are completed.

The GoPNG has negotiated a Multi-Tranche Financing Facility (MFF) loan with the Asian Development Bank (ADB) to implement the Highlands Region Road Improvement Investment Program (HRRRIIP) in tranches. The HRRRIIP includes projects to improve the HCRN, the preparation of long-term maintenance contracts for the HCRN, and the capacity development of road agencies. In total, 13 road sections are expected to be funded under the program.

Tranches 1 has included the improvement of two road sections and Tranches 2 is currently being implemented to upgrade three road sections while Tranches 3 is rehabilitating four road sections including Nipa – Munihi road project. The Execution Agency (EA) for the program is the Department of Works (DOW) whilst the Highlands Region Management Group (HRMG) is the Implementation Agency (IA).

Tranche 3 (ADB 3043/3408 and EU Grant 0485) include the upgrading, rehabilitation and maintenance of four road sections namely, Henganofi-Nupuru, Gewa-Gembogl, Pangia-Wiru Loop, and Nipa-Munihi in the Eastern Highlands Province (EHP), Chimbu Province and Southern Highlands Provinces (SHP) respectively.

The rehabilitation of the Nipa to Munihi road in the Southern Highlands Province (SHP) has a length of 27.73km. The works proposed for the upgrading and rehabilitation of the Nipa to Munihi Road such as earthworks, establishment and operation of quarry sites and extraction of materials, minor civil works and discharge of wastewater are Level 2 activities under the EPAR and requires an EP depending on the duration and scale of those activities.

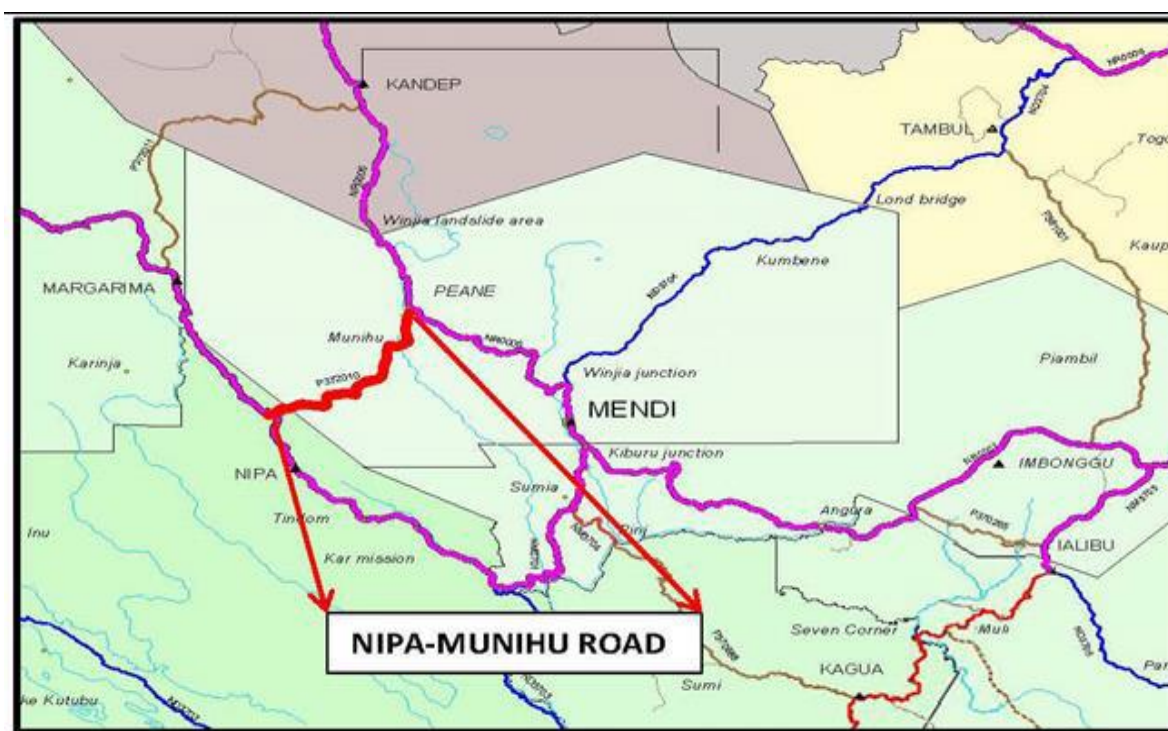
The CEMP was approved in February 5, 2018 and the project commencement date was February 23, 2018 with the mobilization of the Contractor. The construction period of the project is 24 months. The Long-Term Performance Based Maintenance Services is 60 months from the issuance of the Performance Certificate for the Improvement Work.

The Nipa-Munihi Road Section is covered by CSTB contract # 3531 entered into by the Independent State of Papua New Guinea represented by the Department of Works and China Overseas Engineering Group Co. Ltd (COVEC LTD).

## 1.2 Nipa – Munihu Sub-Project Road Description

The Nipa to Munihu road, located in the Southern Highlands Province, commences at the junction with the Highlands Highway in Nipa and extends to Peane junction on the Mendi – Kandep road, a distance of 27.73 km. The road connects the two electorates of Nipa-Kutubu and Mendi-Munihu with the border located Tagil Bridge at km 18+850. The road traverse's hilly terrain from the commencement at Nipa to around Km 4 and again from Komal Bridge at Km 17+350 to the end of the road at Peane. The central portion of the road runs through mountainous terrain as the route crosses the Tondon Range. Within this central portion of the road the elevation rises to a maximum of 2,300 meters from the average mean sea level (amsl) to 1,950 meters at the end of the hilly sections.

The existing road comprises mainly of a silt clay subgrade covered with a gravel layer consisting of poorly graded limestone material which results in a rough running surface. There are also several sections where the subgrade has been exposed with no gravel layer. The road width varies from 3m to 4m in the mountainous section and 6 to 8 m in the hilly sections. Where widening of the road bench is necessary, the design is based on cutting existing slopes rather than widening embankments.



**Figure 1: Location Map of Nipa-Munihu Road**

When completed, the improved road will facilitate the delivery of services to the population and stimulate economic growth through the reduction in travel times and costs of transporting goods to markets. The impacts of the improvements in what is already a highly disturbed environment will be minimal. Improvements will generally be restricted to a maximum 3-metre-wide strip each side of the existing formation and implementation of the EMP will minimize the environmental impacts during construction. Restoration of quarry and dump sites upon completion and the planting of trees are an integral part of the works.

The route crosses two rivers, the Nembi and the Lai River, both on Bailey bridges which are in good condition. There are 8 creeks crossing the alignment, all of which have log/timber

bridges which will need to be replaced with Bailey bridges with steel deck. All the creeks have well defined incised channels which are enough to contain flood flows

The environmental impacts assessed at the time of preliminary design categorised the subproject as Category B for environment. The same category was confirmed by the in- depth environmental analysis conducted at the time of project preparation. The Initial Environment Examination (IEE) dated April 2016 has already been disclosed in the ADB web site. The IEE confirmed that environmental impacts of the rehabilitation of the Nipa-Munihu subproject road are limited to the road corridor, are of minor scale and can be mitigated through the thorough implementation of the measures contained in the environment management plan. The impacts such as dust, noise, materials sourcing, storage, haulage, soil erosion, sedimentation and run-off are likely to occur mainly during the construction phase.

### **1.3 Proposed Scope of Works**

The project intends to improve the existing Nipa to Munihu Road through the provision of a 5.5-meter-wide pavement, sealed with DBST and 0.25-meter gravel shoulders which will be sealed where necessary to prevent erosion. Earthworks will be required to provide an adequate bench for construction of the pavement and associated drainage and will also be required where improvements are required in the vertical alignment to ensure adequate stopping sight distance. An average additional width of 2.5 m on each side of the existing cleared width will be required to accommodate the improvement works. The estimated volume of excavation is 196,000 cu.m. of which 86,000 cu.m. will be reused for embankments and the remainder is expected to be partly surplus and partly unsuitable and therefore to be disposed of. Approximately 40,000 cu.m. of borrow will be required for the balance of embankment construction.

Approximately 850 linear meters of retaining wall will be required at various locations throughout the road length to provide adequate formation width and avoid extensive embankment construction. The improvements will include the provision of road safety features including signs, pavement markings and guardrails.

A total of 55 additional culverts are proposed in addition to the replacement of 56 existing culverts which are of inadequate capacity (typically 450mm diameter) while 65 existing culverts are redundant and will be removed. Approximately 28,000 meters of lined roadside drain will be provided to cater for surface water runoff from the road and adjacent slopes. The rehabilitation and upgrading would approximately take 24 months.

The rehabilitation and upgrading would involve the following activities:

- (i) Transport, handling and storage of construction materials, fuel and lubricants and, machinery to site.
- (ii) Preparation of Contractor's camp and work sites.
- (iii) Establishment of ancillary facilities, i.e. identification and establishment of suitable material sources/quarries, batching, crushing and asphalt plants.
- (iv) Clearing and grubbing (shoulders and drainage).
- (v) Excavate defective sections and improve side drains as required.
- (vi) Excavation and/or filling to widen the existing road bench.
- (vii) Culvert removal, installation, extension and/ or replacement.
- (viii) Construct masonry retaining walls.
- (ix) Construction of gabion protection works.
- (x) Rehabilitate bridges which may include installation of new steel decks if necessary, removing rust and repainting and, construct a

- new bridge.
- (xi) Backfill and compact as required.
- (xii) Layout sub-base and base materials and compaction.
- (xiii) Install road furniture required (guardrails, pavement markings, etc.); and
- (xiv) Pave roadway with DBST.

The upgrading and rehabilitation works for the Nipa to Munihi Road would require approximately 231 people of which 120 unskilled workers will be sourced from the local communities in the area. Various machinery and heavy equipment will be required in the rehabilitation and upgrading works. This would range from 4WD vehicles to bulldozers and represents the manpower complement and machinery and equipment required for the works.

The works require materials including fuel, lubricants, paint, bitumen, cement, aggregates, cement, sand, timber, geotextile, drainage pipes and culverts. All materials will be sourced from approved suppliers. Workers, including local women, will make gabions using local materials for embankment and bridge pier protection:

## **1.4 Purpose**

This report is written to present the status of the environment including compliance with the approved CEMP in respect of the Nipa - Munihi road section covering July to December 2019 Semi-Annual environment safeguards monitoring reports is a requirement under the SPS. In addition, the report provides a clear picture about the future implementation of CEMP activities as well as the environmental outcome.

Since the project has just commenced, the compliance monitoring requirements enumerated in the monitoring findings are prospective and will be evaluated with the approved CEMP.

Furthermore, the report serves the client, ADB, other organisations and the public to understand the environmental management process, its outcome, the corrective actions that are required and the impact of such actions on the environment.

## **1.5 Methodology**

This six-month consolidated report is written using data gathered from several sources. These include (i) Contractor's interviews and monthly reports; (ii) Monthly monitoring report of the Project Supervision Consultant's Environment Specialist and (iii). Monthly HRMG-PIU verification of site and observations.

This report is reviewed and prepared by the Project Supervision Consultant and HRMG-PIU prior to its submission to DoW. It also follows the format prescribed by ADB and a checklist for monitoring environmental compliance.

The list of reports reviewed is in Appendix 1 whilst names of people interviewed are in Appendix 2.

## **1.6 Institutional Arrangements**

The Department of Works, as the executing agency, has the overall responsibility to manage the planning, implementation and monitoring related to acquiring use rights for additional land to implement HRRIP subprojects, as well as compensation for damages on project-affected land.

DOW established a Project Management Office (PMO) headed by a Project Director which manages the day to day activities of the program. Within the PMO, there are two units, the Project Management Unit (PMU) which is based in Port Moresby. The other is the Highlands Road Management Group (HRMG), the DOW's Project Implementation Unit (PIU) for HRRIP subprojects to carry out the planning, implementation, monitoring and reports preparation for land activities, as required and is based in Mt. Hagen City.

In the revitalized organizational chart (as of February 2017), the HRMG is headed by the Field Project Manager (FPM). Under the FPM are two sub-units, the construction unit headed by the "Engineer" and the social and environmental safeguards unit headed by the Senior Field Project Coordinator (SFPC).

## **1.7 Report Organisation**

The report consists of the foregoing introduction and 2 other sections as follows:

- i) Section 1 – Executive Summary
- ii) Section 2 - Introduction,
- iii) Section 3 – Monitoring results and finding
- iv) Section 4 – Conclusions and recommendations and appendices

## **2.0 MONITORING RESULTS AND FINDINGS**

The main findings of monitoring shall include the assessment of environmental impacts during the review period and proscriptive requirements are presented in this section.

The bases for monitoring are the parameters that would be considered in the CEMP of which there are 18 as follows:

- Contractor's camp and yard
- Erosion and sedimentation
- Water quality
- Air quality
- Noise
- Public consultation
- Waste management
- Hazardous material management
- Aggregates extraction
- Tree removal and vegetation management
- Socio-economic issues (workers)
- Socio-economic issues (community)
- Public safety
- Health and safety issues
- Traffic management
- Prevention of HIV/AIDS and STDs
- Existing Infrastructure Issues
- Environment Related Grievances
- Training and Mentoring

The summary of non-compliance from the monthly reports prepared jointly by HRMG and PSC is provided in Table 1. Environment Officers from HRMG with PSC should prepare the Notices of Violation if warranted based on the standards set during a meeting for this purpose.

**Table 1. Summary of Non-Compliance for July to December 2019 for Nipa - Munihi.**

Monitoring Parameters x=non-compliance, ✓=compliance, N/A = Not Applicable		Months					
		July	Aug	Sept	Oct	Nov	Dec
STN02	Summary						
STN03	Training, Mentoring and Meetings	✓	✓	✓	✓		
STN04	Health and Safety Issues	X	X	X	✓		
STN05	Contractor's camp and Yard	✓	✓	✓	✓		
STN06	Earth Works	✓	✓	✓	✓		
STN07	Erosion and Sedimentation	X	X	X	✓		
STN08	Water Quality	✓	✓	✓	✓		
STN09	Air Quality	✓	✓	✓	✓		
STN10	Noise Management	✓	✓	✓	✓		
STN11	Waste Management	X	X	✓	✓		
STN12	Hazardous Waste Management	✓	✓	✓	✓		
STN13	Aggregates Extraction	✓	✓	✓	✓		
STN14	Ancillary Facilities Management	✓	✓	✓	✓		
STN15	Tree Removal & Vegetation Mgmt.	✓	✓	✓	✓		
STN16	Socio-economic Issues of Workers	✓	✓	✓	✓		
STN17	Socio-Economic impacts – Comm.	✓	✓	✓	✓		
STN18	Public Safety	✓	✓	✓	✓		
STN19	Traffic Management	X	✓	✓	✓		
STN20	Prevention of HIV/AIDS and STIs	✓	X	X	✓		
STN21	Existing Infrastructure issues	N/A	N/A	N/A	N/A		
STN22	Environmental Related Grievances	✓	✓	✓	✓		

**Note: Water, air and noise management were being monitored w/o the use of in-situ equipment**

## 2.1 Contractor's Camp and Yard

The contractor has established two camps for the Nipa-Munihi road project. Both camps consist of sleeping quarters, toilet facilities, workshops, fuel depot, batching plant, office, and security house. The sleeping quarters for the PNG nationals at Mt Wiru is overcrowded but Arep camp in Nipa is manageable. The contractor's employee's complaint that one room is occupied by more than 2 persons and the contractor must investigate this issue.

The contractor needs to provide quality water for the people in the camp. The cooking facilities provided are insufficient. Workers need bigger space to cook and even bigger space for dining and not to confine in the kitchen area. The national quarters have no water supply. The occupants collect water for drinking and cooking from the ground source near the camp. The contractor didn't provide tanks to be used to collect rainwater that can serve the workers and their family for cooking, washing, laundry and drinking.

Many national workers with their families are renting houses outside of the camps built by the surrounding community. This is an on-going issue and needs to be addressed by the contractor's management. The contractor can subsidise by paying the rentals for its workers if the contractor cannot provide enough rooms for its workers.

However, the Chinese's quarters had no problem. Their living quarters are well established according the camp plan.

### 2.1.1 Toilet Facilities and Sanitation

Pit toilets are provided for the PNG nationals for both contractors' camps at Arep and Mt Wiru. Other national workers living close to the Chinese nationals at Mt Wiru are provided with septic toilets. There are two septic toilets provided and one is useable while the other needs to be fixed. There are water connections using pumps to pump the water. Naturally the water is clean and drinkable. Workers are encouraged to wash their hands and use water wisely.



**Picture 1: Septic toilets provided for national workers at Wiri camp**

The toilet pits for other national workers at Mt Wiru camp for both male and female are almost full and resulted in producing bad odour polluting the workers living nearby. Some people used surrounding bushes to dispose their wastes (faeces) which is been discouraged by camp administration. This may cause water and air borne diseases such as diarrhoea, typhoid and TB. Hence, it is recommended that septic toilets must be provided for all the workers in all the contractor's camps and workshops

The contractor has initially implemented a waste collection and segregation scheme. However, this must be monitored closely since reports indicate that these are dumped in an open dumpsite.

The implementation of simple solid waste management including recycling and use of kitchen refuse and biodegradables in a compost pit has been encouraged providing the contractor with manuals and instructions.

The proper containment of used oil and lubricants need to be followed and closely monitored due to a recurring problem of spillage and improper disposal which has been observed flowing into the storm drain. There has been spillage of used oils and lubricants near the contractor's workshop. This has been a concern to the surrounding food gardens and needs to be contained. The contractor also needs to do proper bunding on the newly constructed fuel storage facility.





**Picture 2: Oil leaking drums at Mt. Wiri contractor's workshop**

## 2.2 Erosion and Sedimentation Control

The recurring issue of improper waste disposal from clearing and grubbing has resulted in the deposition of silt and sediments in creeks and food gardens. The spoils along the roadside needs to be properly disposed in the designated sites. It is obvious that the contractor has not dumped that spoils from clearing and grabbing into the proper sites as shown at Sumbi village (Ch 19+000).



**Picture 3: Soil erosion and sediment loads near Lai River.**

The contractor must follow the CEMP guidelines on proper spoils disposal. Despite repeated warnings, the contractor has provided excuses and need to be closely monitored by the environmental officers concerned. The contractor will be issued a notice of violation for non-compliance.



## 2.3 Water Quality

The water quality along the project road is pristine before the road is constructed. Hence, to monitor the quality of the rivers along the project site, HRMG has established 7 monitoring stations. The parameters assessed include temperature, dissolve oxygen, pH, and turbidity. All the mentioned parameters are not monitored as of January 2019 due to no major impacts on the river system. However, any complains raised due to water quality by the APs will be assessed by the Environmental Officer against the initial data collected.

Monthly water quality tests could not be established due to the unavailability of the in-situ equipment's. Safe environmental practices ought to be practiced at the site level especially when it comes to rivers and creeks.

## 2.4 Air Quality

Dust particles are produced by moving trucks along the Nipa - Munihi road project during dry seasons. Fumes are also created by big truck when transporting quarry materials, but no major air quality related health issues were reported. By reducing air pollution levels, community can reduce the burden of disease from stroke, heart disease, lung cancer, and both chronic and acute respiratory diseases, including asthma. The lower the levels of air pollution, the better the cardiovascular and respiratory health of the population will be, both long- and short-term.

Hence, it is important that mitigation measures must be taken by the contractor to address the issue. Now, the contractor is using water truck to sprinkle water on the road surface to reduce dust emission. The contractor also does routine maintenances on its truck and machines to reduce fume emission. The burning of used tyres at the contractor's camp site is a great concern. The fumes produced during burning of these tyres is harmful and pose health risk for people living near the camp.



**Picture 4: Remains of burning of used tyres at Mt. Wiri Camp site.**

## 2.5 Noise Management

The noise is produced by heavy trucks when transporting materials from the quarry operations. Noise also produced at the quarry sites during the process of crashing stones to obtain aggregates for base course and sealing. During monitoring, it was observed that trucks do not

produce very loud noise. Few readings taken from the decibel meter showed that very close to the road it measures less than 80 decibels and few meters away from the road it records less than 55 and others 65 decibels. The national standard for noise is less than 45 decibels. Hence the noises produced by the big trucks are quite enough.

The other sounds produced at the quarry sites are quite loud. However, the crushers are located away from the villages and not much disturbances to the people in the villages.

The environmental officers of the contractor, HRMG and PSC have not conducted monthly monitoring of water quality for the months of July to December 2019. The reason being no in-situ equipment.

## 2.6 Wastes Management

The categories of wastes generated from the project consists of overburden from construction sites and improper disposal of spoils from excavation and other earth moving works such as clearing and grubbing. The contractor has obtained permission from landowners for the waste disposal; however, the dumping of waste along the roadside is still a recurring problem.



Picture 5: Improper dumping of clearing and grubbing spoils on roadsides.

## 2.7 Hazardous Materials Management

The storage and ultimately disposal for fluorescent bulbs, computers and peripherals, printers and other equipment has not been properly monitored. Other monitored waste will include used batteries, battery fluids, oils, lubricants, and asphalt products. There are several instances of burning of used tires (Photograph 5). The contractor must strictly implement the provisions of the approved Hazardous Waste Management Plan. The Materials Safety Data Sheet (MSDS) for these wastes will also be part of the HWMP to ensure the proper handling of these materials

## 2.8 Aggregates Extraction

The Quarry Management Plan for all quarries must be prepared individually. In cases where the quarry exceeds that set by PNG, a separate CEPA permit needs to be obtained. A permit is required from CEPA if the quarry volume required is greater than 10 000m<sup>3</sup> there are 6

quarries currently operating for the Nipa Munihu road project and the total volume required for the road project is disturbed evenly among these quarries to avoid accruing permit from CEPA.



**Picture 6: Limestone extraction at Nimb quarry**

**Table 2: Quarry volume extraction and payment**

No	Quarry name	Status	Volume extraction (M <sup>3</sup> )			Royalty payment (kina)		
			July	Aug	Sept	July	Aug	Sept
1	Wapun-su Oro	Operating with crusher	12,547	10,436	4,653	21,332.5	17,743.8	8,375.4
2	Sopharam	Operating	-	2,450	7,623		4,165.2	12,959.1
3	Haram	-	-		-	-	-	-
4	Huremi	Operating	14,378	11,470	12,431	24,443.8	19,499.9	21,133.75
5	Suru	Operating with crusher	3,794	3,125	4,014	6,829.2	5,639.8	7,225.2
6.	Nimb	Operating	-	-	11,010	-	-	15,515
	<b>Total</b>		<b>30,719</b>	<b>27,481</b>	<b>39,731</b>	<b>52,605.5</b>	<b>47,048.7</b>	<b>65,208.45</b>

A technical assistance meeting was conducted to provide outlines and explanation on best practices for QMP management. There is need for better quarry management hence current practice could cause environmental harm from land slips and destruction of forests by using machines (Photograph 6).



## 2.9 Trees Removal and Vegetation Management

The felled trees from the clearing and grubbing operation were given to the respective landowners which were then turned into lumber and sold along the roadside (Photograph 7).

However, the contractor needs to comply with the inventory and marking of all trees destined for removal. These should be marked together with the Environmental Officer of HRMG and only the marked trees can be removed. No tree shall be removed without the prior approval of the Engineer and any competent authority. The total number of trees to be removed during the DMS for the Nipa Munihi road project was not recorded in the IEE. Hence, trees were marked and removed as clearing and grubbing commenced. Some of the trees that were not removed during the clearing and grubbing phase were removed recently with the approval from the landowners.



**Picture 7: Removal of trees for roadside clearance at Sumbi village**

## 2.10 Socio-economic Issues of Workers

The data for employment showed that a total of 662 employees were employed by the contractor. However, women only consisted of 5% for the period covered. The contractor is encouraged to provide additional employment opportunities for women. The required number of female employments is 30%. The contractor has increased women employment to 25% this year. This is a significant increase given the culture of male dominance in this part of PNG.

The project also tried to capture women employment from road construction activities in minor road works such as gabions, ripraps and head walls (Table 3).

**Table 3: Women participation in non-payroll activities from July to December 2019**

Month	Gabions	Rip Raps	Head Walls	Total
July	2	2	2	6
August	2	2	1	5
September	2	2	2	6
October				
November				
December				
<b>Total</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>17</b>

## 2.11 Socio-Economic Issues of Community

The community benefit for the community is contained in Table 4 wherein expenditures from the camp in terms of purchases of food, construction materials, other purchases and other local expenses are detailed for the period. Efforts should be made to determine the accuracy of the total purchases which amounted to K 2.4 million.

Other benefits including royalties to the community for quarry land leases are detailed in Table 5. The benefits from quarry activities are given to the landowners. However, the project should also consider the provision in their operations for environmental management considering the damages to the environment.

The rent for the Contractor's camp is K 3,000 for each camp site. The previous semi-annual report was K2,000. An environmental concern was the disposal of wastes in the roadside during the clearing and grubbing. This should be noted since the table did not indicate payments to landowners for the site disposal agreements.

Community meetings are required to inform the communities of the project's presence and to provide information and education campaign activities. A community meeting for Negia village is being conducted (Photograph 7).

**Table 4: COVEC monthly expenditure for purchase of local produce and materials.**

Month	Purchases of Food (K)	Construction Materials (K)	Other Purchases	Other Local Expenditure	Total
July	13,251.00	41,286.00	120,356.26	184,133.20	359,026.46
August	10,662.00	20,494.60	113,965.10	219,733.10	364,854.80
September	11,826.80	135,347.43	152,361.00	194,630.20	494,165.43
October	0.00	0.00	0.00	0.00	0.00
November	0.00	0.00	0.00	0.00	0.00
December	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>35,739.8</b>	<b>197,128.03</b>	<b>386,682.36</b>	<b>600,496.5</b>	<b>1,218,046.69</b>

**Table 5: Royalty payment for quarry rock material extracted**

Month	Quarry 1- <i>Wapun Suoro</i>	Quarry 2 <i>Haren</i>	Quarry 3 <i>Heremi</i>	Quarry 4	Total (m <sup>3</sup> )	Estimated Value (Kina)*
July	3,550	1,300	260	1,260	<b>6,370</b>	9,555.00
August	1,460	1,950	420	850	4,680	7,020.00
September	1,560	2,650	500	650	5,360	8,040.00
October	-	-	-	-	-	-
November	-	-	-	-	-	-
December	-	-	-	-	-	-
<b>Total</b>	<b>6570</b>	<b>5900</b>	<b>1180</b>	<b>2760</b>	<b>39690</b>	<b>59535</b>

\* Calculation using K1.50/m<sup>3</sup> agreed rate.

**Table 6: Summary of land lease payment paid to customary landowners**

Month	Camp 1 Mt Wiru	Camp 2 Arep	Stockpile Sites	Disposal Sites	Total
July	3,000.00	3,000.00	0	0	6,000.00
Aug	3,000.00	3,000.00	0	0	6,000.00
Sept	3,000.00	3,000.00	0	0	6,000.00
Oct	3,000.00	3,000.00	0	0	6,000.00
Nov	3,000.00	3,000.00	0	0	6,000.00
Dec	3,000.00	3,000.00	0	0	6,000.00
<b>Total</b>	<b>18,000.00</b>	<b>18,000.00</b>	<b>0</b>	<b>0</b>	<b>36,000.00</b>

## 2.12 Public Consultation and Awareness

Public consultation is very important to drive huge projects in the country. Awareness and passing of information to people became an integral part of project delivery in the HRRIP projects. Currently there are no concerns with respect to existing infrastructure issues



**Picture 8: Public consultations at Negia village in Nipa**

## 2.13 Public Safety

The risks to public safety in terms of accidents tragically resulted in death in the previous reporting period. The risks from erosion and sedimentation of water bodies and home gardens should also be assessed. In some cases, even the road construction project is at risk from landslides (Photograph 10).

The Contingency Emergency Response Plan needs to be followed by the contractor to prevent such risks and hazards. ern and the attendant potential risks and hazards.

## 2.14 Workers Health and Safety

Despite repeated instructions, most of the workers in the site are not provided with PPEs. It is recommended that precautions should be taken by the Contractor to ensure the safety and protection against accidents of all staff and labour engaged in the works (Photograph 11).

The Contractor should follow the approved Health and Safety Plan (HSP) which was approved by DOW-ESSU with operational details addressing health and safety concerns during his Works.

## 2.15 Traffic Management

The Contractor has provided traffic signs or traffic aides for its project implementation in line with the requirements of the approved Traffic Management Plan.

The contractor has been advised to provide the required traffic management resources including standard traffic signage based on its stated TMP.



**Picture 9: Traffic Signage**

## 2.16 Prevention of HIV/AIDS and STDs

The Contractor has submitted an HIV/AIDS and STDs plan to DOW-ESSU. The identified service provider is the Munihi Health Centre. However, the service provider doesn't have the certificate from PNG AIDS Council to practice. As a result, no HIV/AIDS related activities conducted for the past 6 months. The contractor needs to identify another service provider and engage so that people cannot be missed out on this vital service. The gender and HIV/AIDS officer from HRMG does periodic monitoring per months to ensure the contractor comply with the HIV plan. Refer to Appendix 3 for further details on HIV/AIDS awareness program carried out in Nipu-Munihi during this reporting period.

## 2.17 Environment Related Grievances

There were no complaints /grievances received from landowners during inspection of the site camp in Nipa District as well as for Mt. Wiri camp site in Munhiu. The only grievances received were on the monthly payment of quarries and other damages done to the environment, but for this problem the contractor and the landowners has amicably solve the problem. Current problem is at Sumbi village concerning the destruction of the ceremonial ground and other damages.

There have been at least 3 reports of environment related grievances and yet to be verified by HRMG. However, details of the resolution need to be documented.

**Table 7: Record of Environmental Grievances (July to December 2019)**

Month	Environmental Grievance	Person / Organization	Resolution
Jul	-	-	
August	-	-	
September	3	persons	Environmental damages yet to be verified by HRMG
October	-	-	
November	-	-	
December	-	-	
<b>Total</b>	<b>3</b>	<b>3</b>	

## 2.18 Training, Mentoring and Meetings

The contractors' Environmental officers participated in the Quarry Closure and Rehabilitation training conducted by the PSC International Environmental and Social Safeguards Specialist at Kimininga Lodge on the 9th of September 2019.





**Picture 10: Quarry Closure and Rehabilitation Training in Mt. Hagen**

## **4.0 CONCLUSIONS AND RECOMMENDATIONS**

### **4.1 Conclusions**

The contractor has not complied with the monthly environmental parameters monitoring following the approved CEMP. The other related plans also need to be implemented.

The PSC needs to closely monitor the implementation of the plans and provide corrections and best practices when needed.

The contractor has only conducted two monthly monitoring activities for the identified environmental parameters. A monthly monitoring schedule is a project requirement.

There is a need to conduct monthly monitoring using in-situ equipment for the identified environment parameters. However, the contractor has to purchase the required equipment. The in-situ equipment was not purchased by the contractor and no results were produced for the water quality, air and noise pollution from July to December 2019.

A perennial problem is the sewage treatment facilities which do not conform to best practices and should be repaired immediately since it contaminates environmentally sensitive receptors such as water bodies.

The wastes from the clearing and grubbing activities are dumped into environmentally sensitive receptors including rivers and streams. This should be stopped, and the spoils deposited in the agreed upon disposal sites.

The absence of soil erosion and sedimentation mitigation measures need to be addressed following identified best management practices.

The contractor needs to provide the appropriate PPEs to its workers.

## 4.2 Recommendations for Implementation and Corrective Actions

The experience from Tranche 1 and Tranche 2 indicate that the personnel recruited by the Contractor need capacity building. An intensive training and seminar activity will be conducted for the first quarter of 2019. The participants will include Contractor's staff with the assistance of DOW-HRMG together with the PSC. (Table 9)

The importance of identifying environmental harm and mitigating or remediating these harmful activities need corrective action. The procedure followed by the project is the identification of environmental non-compliance by PSC and HRMG. The repeated infractions or severity of the environmental harm will be the basis for the issuance of a Notice of Violation of PSC and or HRMG. This NOV becomes the basis for the preparation by the contractor of a Corrective Action Plan to address the violations.

In this case, corrective action could be categorized into two; corrections mean that there is immediate relief or action to an environmental problem. Corrective action refers to actions that would ensure that these environmental problems are not repeated either through policy or application of environmental management best practices (Table 10).

**Table 8: Proposed Capacity Building Workshop Trainings and Seminars in 2010**

Activity Number	Item and Recommended Action	Responsibility	Completion Date
1	Training on the use of environmental In-situ equipment for monitoring.	HRMG-PSC-CONTRACTOR	January - June 2020
2	Echo Seminar-Workshop on Traffic Safety.	DOW-HRMG-PSC-CONTRACTOR	January - June 2020
3	Echo Seminar-Workshop on First Aid Procedures	HRMG-PSC-CONTRACTOR	January - June 2020
4	Echo Seminar-Workshop on Environment Health and Safety Best Practices.	HRMG-PSC-CONTRACTOR	January - June 2020
5	Seminar Workshop on Status, Issues and Concerns in the Implementation of the CEMP and other plans.	HRMG-PSC-CONTRACTOR	January - June 2020

**Table 9: Recommended Corrective Actions**

Non-Compliance	Recommendations for Implementation	Corrective Actions Plan	In-Charge	Date of Implementation
Irregular monthly monitoring for identified environmental parameters.	Advise the contractor to conduct environmental monitoring using in-situ equipment.	Assist the contractor's Environmental Officer in the use of these equipment.	PSC HRMG	January - June 2020
Wastes from clearing and grubbing are dumped into rivers and streams.	Issue appropriate Notices of Violation for repeated offenses.	With the RE and HRMG, identify the concerns raised identify official disposal sites.	PSC HRMG CONTRACTOR	January - June 2020
Absence of PPEs for majority of the workers.	Issue Notices of Violation for repeated non-compliances.	For contractor to prioritize PPEs in project.	CONTRACTOR	January - June 2020
Absence of soil erosion management and	Issuance of NOVs to the contractor for failure to implement	Contractor to be assisted in the preparation of	CONTRACTOR	January - June 2020

sediment traps to contain spoils being transported to water bodies.	soil erosion control measures such as establishment of sediment traps and tree and grass seeding or planting.	action plan with detailed activities.		
Absence of camp clinic with nurse or appropriate health personnel to provide first aid assistance.	Delegate the contractor's officer who attended the Seminar on First Aid to provide assistance.	The contractor needs to provide a plan to implement the designation process and provide the necessary resources.	CONTRACT OR	January - June 2020
Revise and get approval for the lacking Quarry Management Plans.	Review with the contractor the pending plans and assist in their accomplishment.	Provide a written notification to the contractor to submit and revise these plans.	CONTRACT OR	January - June 2020

## **APPENDICES**

### **Appendix 1: List of References**

1. Initial Environmental Examination for Nipa - Munihu Road section (2016).
2. Department of Works Specification for Road and Bridge Works 1995
3. Department of Works Specification for Road and Bridge Works 2015 Edition
4. Back to Office Report of HRMG Environmental Officer
5. Conformed Documents for the Improvement Works and Long-Term Performance Based Maintenance Service (LTPBM) for Nipa - Munihu Road. Contract Number CSTB 3533.

### **Appendix 2: List of People Interviewed**

1. Mr. Bienvenido Mirang – Resident Engineer PSC
2. Alphonse Niggins, Senior Field Coordinator, HRMG
3. Paul Nombri, Manager, Technical Services, HRMG
4. Andrew Noria – Senior Environment Officer, HRMG

### Appendix 3: HIV/AIDS Awareness program for Nipa-Munihi Rd in 2019.

#### Monthly Implementation Plan. United Church in Highlands Region.

Year: 2019 Month: July - December Desk/Sector: HIV/AIDS VCCT CENTER.

MONTH	PRIORITY COMMUNITY	ACTIVITIES	ACTION PERSON	INDICATORS
July	-Munhiu Primary School -Maip village	-Visit areas to do awareness. -Visit school areas to do awareness	VCT Nurse - HIV Coordinator -Education Secretary	-Do awareness - Do Counseling & Training -Demonstration Of male & female condoms -Issuing of posters, pamphlets & Booklets.
August	-Negia	Visit areas to do awareness.	-VCT Nurse -HIV Coordinator	-Do awareness - Do Counseling - Issue condoms & do demonstration.
September	-Sumbi - Sumbi Primary school	-Visit areas to do awareness. -Visit sumbi primary school	-VCT Nurse -HIV Coordinator -Education Secretary	-Do awareness -Do Counseling & Training -Issue Condoms & demonstrations
				-Issuing of posters, pamphlets
October	-Egenda - Egenda Primary school	-Visit areas to do awareness.  -Visit school to do general awareness	-VCT Nurse -HIV Coordinator -Education Secretary	-Do awareness -Do Counseling & Training - Issue Condoms & do demonstration of male & female condoms. - Issuing of posters, pamphlets & booklets.

November	-Kopeso	-Visit areas to do awareness	-VTC Nurse - HIV coordinator	-Do general awareness - Do Counseling and Training
December	-Nipa station & Nipa Admin Primary school	-Visit areas to do awareness. -Visit school to do general awareness	-VTC Nurse -HIV Coordinator -Education Secretary	-Do awareness -Do Counseling & Training -Issue condoms & do demonstration of male and female condoms. - Issuing of posters, pamphlets & booklets

### **Brief Description of activities Undertaken**

This monthly report is prepared for the month of July 2019 to assist the major contractor,

COVEC (PNG) Limited to address the issues on the HIV/AIDS and STI awareness in NipaMunihu Road Project. Walpumemin VCCT Centre has delivered the HIV/AIDS and STI awareness, pre/post counselling and testing at Map on the 28<sup>th</sup>/07/19 to 29<sup>th</sup>/07/19.

The objective of this awareness is to educate the local communities living along the project areas regarding the negative impacts (HIV/AIDS, and STI) during and after the Nipa-Munihu road project.

The team of service providers comprises of 2 male officers and a female Nursing officer. Activities undertaken include dissemination of basic HIV/AIDS, STI information, stigma in the community, laws protecting victims, counselling services, questions and feedback, distribution of pamphlets and male/female condoms, free testing and counselling.

### **List of Activities.**

1. Dissemination of basic HIV/AIDS information
2. Explained the preventive ways of HIV/AIDS
3. Contributing factors of HIV/AIDS infection
4. Explicated on positive living once infected
5. Clarify the rights of an individual, his/her confidentiality and community support to people living with HIV/AIDS
6. Conduct HIV Test -. Every employees and people (male, female and children) from the communities (Munihu Station, Wisitee & Dulipa Kip junction) are encouraged to voluntarily test their blood status.
7. Conduct pre & post counselling

- i. Counselling Service were provided before testing because results were given after 15 minutes and pre-post counselling were provided because we uncertain of their status.
- 8. Distribute pamphlets
  - i. Distribution of pamphlets to the attendees was good as some pamphlets were written in "Tok Pisin" which they can read at their own time to broaden their knowledge and get proper message.
- 9. Distribution of Demonstration of Condoms
  - i. . Demonstration of male and female condoms was shown to the public for safety purpose. Women were encouraged that female condoms are much sager to wear when travelling long distance because it will take 8 hours to stay on the body. Always not to use spoil and expired condoms. They were strictly advised for the safe use of condoms to
  - b. Prevent HIV/AIDS
  - c. Prevent STI
  - d. Unwanted pregnancy
  - e. Family planning

### **1. Location 1.**

**For the month of July, the team have visited Munhiu Primary school and Maip village to do its awareness on HIV/AIDS.**

Location of Awareness	Date of Awareness	Start Time	Finish Time
Maip kepol	27/07/19	lpm	2pm
Munhiu Primary School	29/07/19	10am	12pm

### **2. Program Statistics**

The numbers of condoms distributed and number of people who attended the awareness on the 28<sup>th</sup> July is as follows.

Details	Company Employee		General Population	
	Male	Female	Male	Female
No. of People in awareness	11	01	23	11
No. of Condom distributed	05		20	05

### **3. Resource Materials**

The total number of materials used during the July awareness at Munhiu Primary School and Maip village is as follows.

Materials	Total Distributed
Posters	03
Pamphlets	10
Booklets	09

#### **4. HIV/AIDS Services**

The services provided on the 28<sup>th</sup> July at Maip village are.

Services Provided	HIV		STI	
		Female	Male	Female
Pre-Test Counselling				
Testing	02	01	05	01
Post Test Counselling	01		03	02
Person Tested Positive	0	0	05	02
Treatment Referrals	01		02	01

- The figures shown above are the results of services conducted at Maip village only.

#### **Summary**

The HIV/AIDS/STI awareness took place at Munhiu Primary school and Maip village on the 28/07 to 29/06/19 respectively. Only general awareness was conducted and basic materials like posters, pamphlets and male and female condoms were distributed to the employees, students and the Locals. Demonstration of female and male condoms was also carried out and services like pre/post-test counselling and testing will be done at the centre once we have the names and they will be encouraged to come and see us. Referrals will be made to our next health centre which is a United Church health service provider in the Lai Valley area if we identify people who are with STI/HIV positive.

Many positive remarks from the local community about the awareness and thank the major contractor for the free service provided at the camp site and the community as a whole. They urged that the program would help them to be faithful and abstain from sex partners and be mindful to the negative activities along the road corridor linking Munhiu-Nipa. The attendees are advised to visit Munhiu Health Centre or Mendi General Hospital (NINA CLINIC) if they need further information and testing.

Therefore, to summarize, the latest survey done at these two (2) communities; Munhiu Primary school and Maip village is that: The Walpumemin VCCT Centre has the latest confirm statistics of PLWH (People Living With HIV) in the project corridor for this month( July 2019) are as follows:-

NO.	NAMES of PLACES	NO. of PLWH	COMMENTS
1.	Maip	Nil	ok
2.	Munhiu Primary	Nil	ok
	TOTAL		



**Location 2. For the month of October, the team have visited Olmaptee and Sumbi village to do its awareness on HIV/AIDS.**

Location of Awareness	Date of Awareness	Start Time	Finish Time
Sumbi	23 <sup>r</sup> /10/19	2pm	3pm
Olmaptee	24 <sup>t</sup> /10/19	3pm	4pm

### **Program Statistics**

The numbers of condoms distributed and number of people who attended the awareness on the 24<sup>th</sup> October is as follows.

Details	Company Employee		General Population	
	Male	Female	Male	Female
No. of People in awareness	10		15	07
No. of Condom distributed	25		30	05

### **Resource Materials**

The total number of materials used during the September awareness at Olmaptee and Sumbi village is as follows.

Materials	Total Distributed
Posters	
Pamphlets	02
Booklets	10

### **HIV/AIDS STI Services**

The services provided on the 24<sup>th</sup> October at Olmaptee and Sumbi village are.

Services Provided	HIV		STI	
	Male	Female		Female
Pre-Test Counselling				
Testing	03	03	02	01
Post Test Counselling	01	04	02	02
Person Tested Positive	0	0		01
Treatment Referrals	01	01	02	01

The figures shown above are the results of services conducted at Olmaptee and Sumbi village only.

## **Summary**

The HIV/AIDS/STI awareness took place at Olmaptee and Sumbi village on the 23<sup>rd</sup>/10 to 24/10/19 respectively. Only general awareness was conducted and basic materials like posters, pamphlets and male and female condoms were distributed to the employees, students and the Locals. Demonstration of female and male condoms was also carried out and services like pre/post-test counselling and testing will be done at the centre once we have the names and they will be encourage to come and see us. Referrals will be made to our next health centre which is a United Church health service provider in the Lai Valley area if we identify people who are with STI/HIV positive.

Many positive remarks from the local community about the awareness and thank the major contractor for the free service provided at the camp site and the community as a whole. They urged that the program would help them to be faithful and abstain from sex partners and be mindful to the negative activities along the road corridor linking Munhiu-Nipa. The attendees are advised to visit Munhiu Health Centre or Mendi General Hospital (NINA CLINIC) if they need further information and testing.

Therefore, to summarize, the latest survey done at these two (2) communities; Sumbi and

Olmaptee village is that: The Walpumemin VCCT Centre has the latest confirm statistics of PLWH (People Living With HIV) in the project corridor for this month (October2019) are as follows: -

NO.	NAMES of PLACES	NO. of PLWH	COMMENTS
1.	Sumbi	02	On ARV Drugs medication
2.	Olmaptee	Nil	ok
	TOTAL	02	

Thus, we have 02 PLWH from Sumbi and Olmaptee village. We personally know these PLWH as it is confidential to us and they know what to do in their own communities for positive living.