PCI-SINOPHARMINTL CONSORTIUM

Environmental & Social Assessment and Environmental and Social Management Plan for Workers' Camp Kato Hospital in Region No.8

WITH CONSULTATION REPORT

Health Care Network Strengthening (HCNS) in Guyana Project (GY-L1080)

AUGUST 2025

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1.0. Introduction

1.1 Overview

This document is deemed as the Contractor's Environmental and Social Assessment and Environmental and Social Management Plan (hereinafter referred to as ESA/ESMP). At this stage, it is mainly prepared for the construction of temporary workers' camps. The ESA/ESMP plan for the overall construction of the hospital project is currently ongoing and this ESA/ESMP for the workers' camp will serve as an Annex to the overall ESA/ESMP. The contents of this ESA/ESMP include project introduction, campsite information, environmental and social impact assessment, and environmental and social management plans.

This ESA/ESMP sets out the expectations of the **Ministry of Health (MoH)** and the **Inter-American Development Bank (IDB),** and defines how the **Contractor (PCI-Sinopharmintl Consortium)** will implement and manage social and environmental matters related to the workers' camp. Construction and use of the campsites involve potentially hazardous activities. Preparing an effective ESA/ESMP and implementing effective measures are crucial to ensure the health and safety of workers, protect the Kato community and environment, and maintain project security.

PCI-Sinopharmintl Consortium will update and annex this ESA/ESMP to the overall ESA/ESMPfor the design and build of the Kato Hospital, based on changes in construction activities, changes in equipment and facilities, changes in the number of residents, etc. during the construction and use of the campsites.

1.2. Purpose

The main objectives of this ESA/ESMP are as follows:

1. Guide environmental and social management matters during the construction and use of the project campsites;
2. Discuss the risks and impacts during the construction and operation of the workers' camp and outline the mitigation measures for the risks and impacts;
3. Minimize the environmental and social impacts caused by the construction and use of the campsites;
4. Ensure that no environmental impact events or social impact events occur and ensure there is a system in place to manage and mitigate impacts;
5. Ensure that the construction and use of the campsites complies with Guyana's relevant legislations;
6. Develop comprehensive measures to prevent environmental and social impacts and strictly implement these measures;
7. Ensure PCI-Sinopharmintl Consortium fulfils Environmental, Social, and Health and Safety (ESHS) obligations as per contractual requirements;
8. Ensure that all activities comply with the IDB's Environmental and Social Policy Framework.

1.3. Guiding Principles

PCI-Sinopharmintl Consortium's Environmental and Social Management Plan will follow the Deming Cycle principle, also known as Plan, Do, Check, Act (PDCA). This principle is a continuous improvement methodology that is used to address systemic problems and improve processes. The 'Plan' phase involves defining the problem, setting goals, and outlining a plan to address it. In the 'Do' phase, the planned changes are implemented and tested. The 'Check' stage will involve data collection and analyzing the results to assess effectiveness of the changes. Based on findings in the 'Check'

phase, appropriate actions are ‘Acted’ upon.
By adopting the Deming Principle, PCI-Sinopharmintl Consortium commits to effectively managing environmental and social risks at the workers’ camp by applying existing, pre-approved ESA/ESMP measures to ensure compliance, sustainability, and project efficiency, ultimately contributing to responsible construction and operational practices.

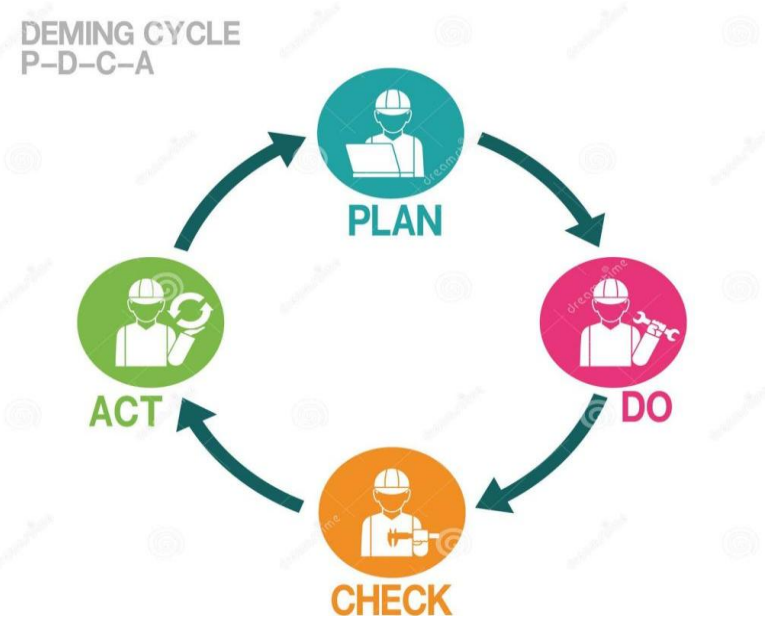


Figure 1: Deming Cycle Principle

1.4. Project Location

The proposed hospital construction project is located at Kato, Region 8 (Potaro-Siparuni) in Guyana at GPS: 4.654843,-59.83026 [UTM N21]. Kato is located 300 KM southwest of the main capital Georgetown. Kato and the surrounding settlements are primarily occupied by the Patamona Indigenous tribe. Nearby villages include Chiung Mouth, Kurukabaru Village and Paramakatoi. Kato accommodates the Kato Secondary School, a nursery and primary school with teachers living quarters, a police station, and the existing cottage hospital. Other surrounding environs include a Regional Guest House, a community center, the Village Council’s office, several community shops and an airstrip. The project site for the construction of the hospital is located approximately 2-3KM from the main administrative center. Kato is situated on an elevated mound with undulating landscape and the site is at a general elevation of 600-700 meters approximately. The project site is virgin land and had no known previous land use or habitation or occupation.

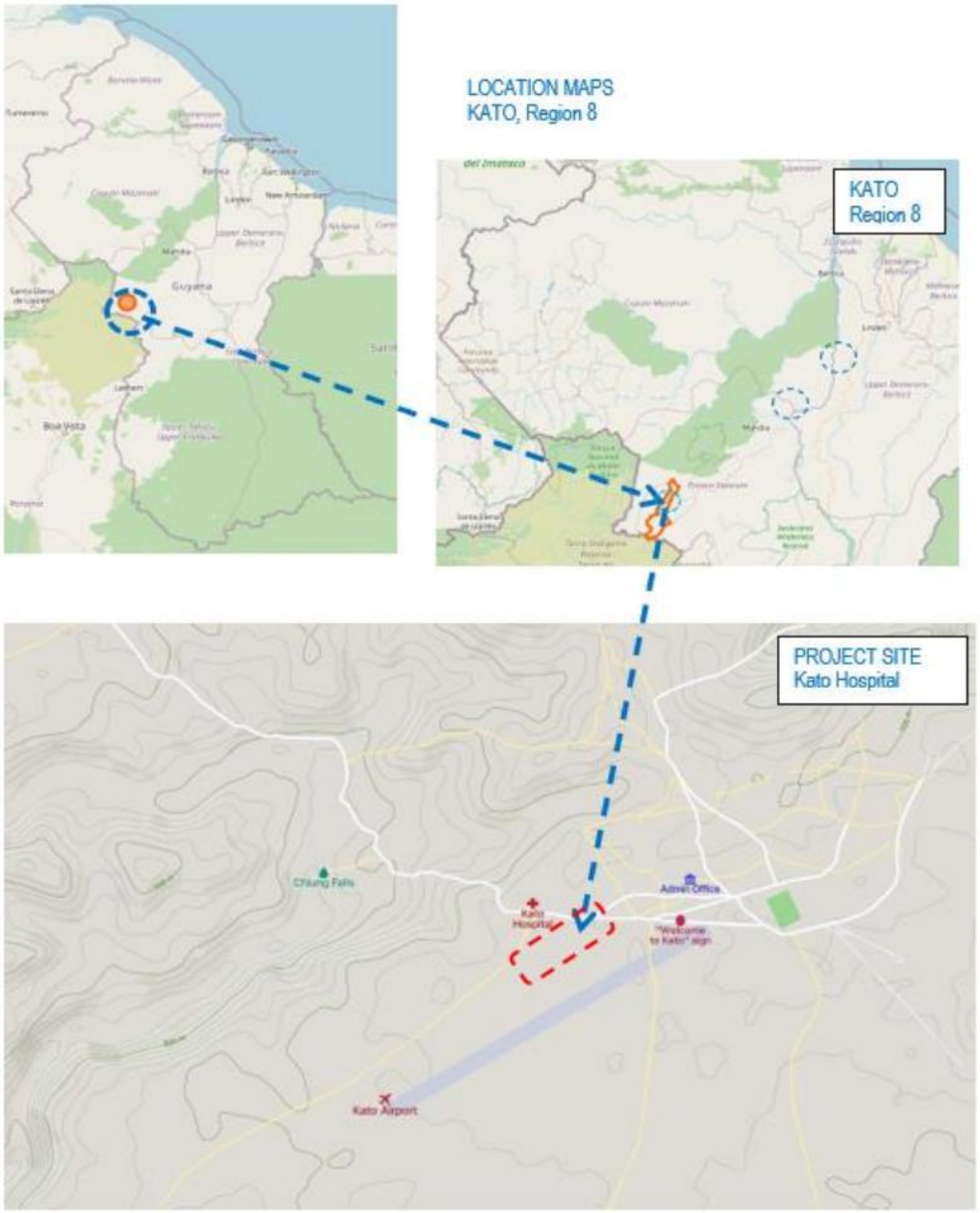


Figure 2: Project Location *[Retrieved from Project Bid Documents]*

1.5. Project Overview

The basic information of the project employer, contractor, etc. is shown in **Table 1** below.

Table 1: Project Information

Employer	Ministry of Health	MINISTRY OF HEALTH GUYANA
Financing	Inter-American Development Bank	IDB Inter-American Development Bank

Engineer	JV JFAMPC-CBA	
Contractor	PCI-Sinopharmintl Consortium	

The Government of Guyana (GOG), through the MOH, has received a loan from the IDB to implement a Health Care Network Strengthening project in Guyana (GY-L1080 I 5706/0C-GY). The overall project's objective is to improve the health of the Guyanese population through increased access, quality, and efficiency of health services.

The specific objectives of this operation are to:

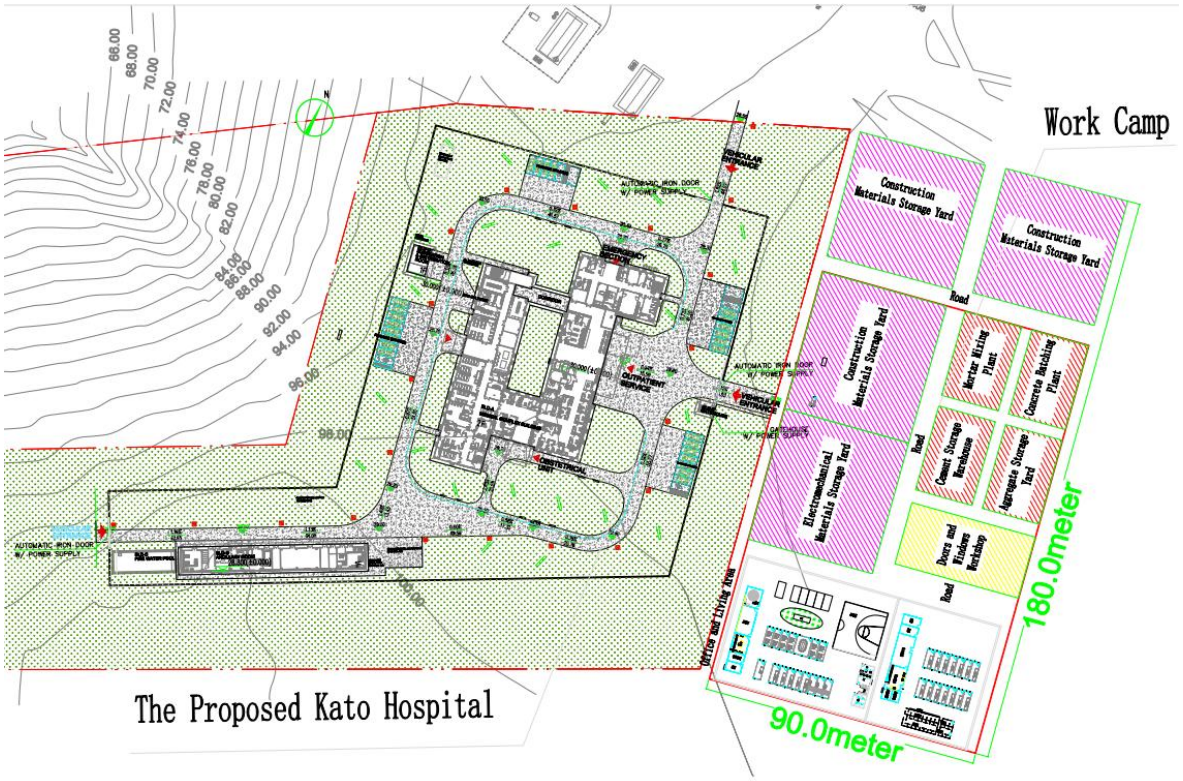
i. Improve health outcomes associated with low and high-complexity procedures, by expanding the capacity of strategic hospitals;
ii. Extend coverage of diagnostic, medical consultation, and patient management services inclusive of the country's hinterlands, through digital health (DH); and
iii. Increase the efficiency of the public health system, by strengthening key logistic management, and support processes and inputs.

As part of this project, the MOH launched a bid request for the design and build of a new regional hospital at Kato. The proposed hospital design occupies a site area of approximately 67,972 square meters, with a developed land area of about 40,460 square meters. The hospital is designed to accommodate 45 beds and includes functions such as outpatient services, medical technology, wards, and ancillary rooms. The total construction area of the project is 5375.97 square meters, with an outdoor patient parking lot provided. The project includes the following facilities outlined in **Table 2** below.

Table 2: Facilities to be Constructed

Facility	Space (Sq. M)
Medical Comprehensive Building (Building A)	4,898.52
Ancillary Rooms (Building B)	414.45
Fire Water Pool (Building C)	
Substation (Building D)	54
Security Guard Room (Building E)	8

The project also includes service and support infrastructure such as roads and landscape design. The Contractor shall not be required to supply and install medical equipment. However, the contractor is required to provide all attachments and connections to facilitate the installation and connection of medical equipment and accessories. These shall include items such as gas connections and fittings, brackets, anchor bolts, plumbing and electrical works, etc.



Source: PCI-Sinopharmintl Consortuim's Design Team

Figure 3: Proposed Design[1]

1.6. Campsite Introduction

PCI-Sinopharmintl Consortium has selected the location of the campsite immediately adjacent to the east side of the proposed Kato hospital. The campsite, titled to the Kato Village Council, is virgin land and had no known previous land use or habitation and occupation. There are no immediate neighboring residents and businesses. The existing Kato Cottage Hospital and staff living rooms are situated to the north side, and an airstrip by the south side. Other than that, the surrounding environs are all empty lands owned by the Village Council. PCI-Sinopharmintl Consortium has been granted permission by the Kato Village Council to use the land for the workers' camps. Please see **Appendix Fourteen.**

1.6.1. Main Campsite

The main camp covers an area of 4.0 acres and will mainly be equipped with office and living areas, electro-mechanical materials storage yard, construction materials storage yard, doors and windows workshop, concrete batching plant, aggregate storage yard, cement storage warehouse, and mortar mixing plant. The camp will also include fuel storage, waste management, septic tanks and a water supply system.

[1] **Note: Design is subject to change due to ongoing revisions by the MOH. This document will be updated to reflect any such changes.**

Figure 4: Main Campsite Land

1.6.2. Office and Living Area

The office and living area covers approximately 0.88 acres, accounting for 22% of the camp area. This area will contain 5 offices, 22 living rooms (with 3 or 5 people living per room), conference rooms, bathrooms, activity rooms, kitchens, restaurants, generators and other facilities, and can meet the living and office needs of 70 people. Approximately 50 laborers are expected to come from China and approximately 20 local workers from the nearby villages (maximum).

1.6.3. Doors and Windows Workshop

This area includes door and window material processing area. This area has no pollution.

1.6.4. Cement Concrete Batching Plant

The main technical parameters of the cement concrete batching plant are outlined below in **Table 3** below.

Table 3: Main Technical Parameters of Concrete Batching Plant

Technical Area	Parameters
Model	JZC350
Mixing Capacity	350L
Productivity	10~14 m^3/h
Mixing Motor Power	5.5kW
Lifting Motor Power	4.5kW
Water Pump Power	0.55kW
Drum Rotation Speed	14r/min

1.6.5. Warehouse

The warehouse adopts a closed building and is mainly used for bagged cement storage, which covers an area of 300m^2. Bagged cement is mainly used for on-site mobile mixers to mix concrete.

1.6.6. Power Supply

The camp's living and office areas will use solar photovoltaic panels for power generation, while the construction site will use diesel generators for power supply.

1.6.7. Water and Sanitation

Currently, there is no municipal water supply in Kato, just a well and storage system for the whole village. The camp plans to use water from the pipe linked to the existing Kato Cottage Hospital for living purpose, and use the water from the nearby river for construction purposes, and after filtration as a supplement for living. The main river is about 830 meters from the site, with adequate water flow. A pipeline will be laid from the Chiung River to the camp site, which will pass through land owned by the village. **Figure 7** shows the water pipe line which documents the path of the pipeline and agreement to lay the pipeline. The camp will have sanitation facilities such as operating washrooms, bathrooms, hand washing stations and a wastewater sedimentation tank (Please see **Appendix Fourteen**). Material from the septic tank will be used as fertilizer for local crops. The sedimentation tank will be inspected regularly for leaks. After the tertiary treatment in the septic tank, the water will flow into the sewage treatment system, and the treated water will be reused. PCI-Sinopharmintl will dismantle the septic tank and restore the vegetation as required. After passing through the three-stage sedimentation in the septic tank, the sewage will enter a small sewage treatment system. The treated sewage is reused (such as for maintenance during construction and for sprinkling dust on roads) and will be tested to meet the industrial effluent discharge guidelines. The solid material will be cleaned from the septic tank when the camp site is closed. An agreement has been reached with the village council.

If wells will be dug, it will require licensing and registering of well development and water use activities with the groundwater resources section of the Hydro Meteorological Service. Before the establishment of any new well (abstraction, testing or monitoring), an application for a permit to drill is required and must be submitted. At this stage, no wells will be dug.

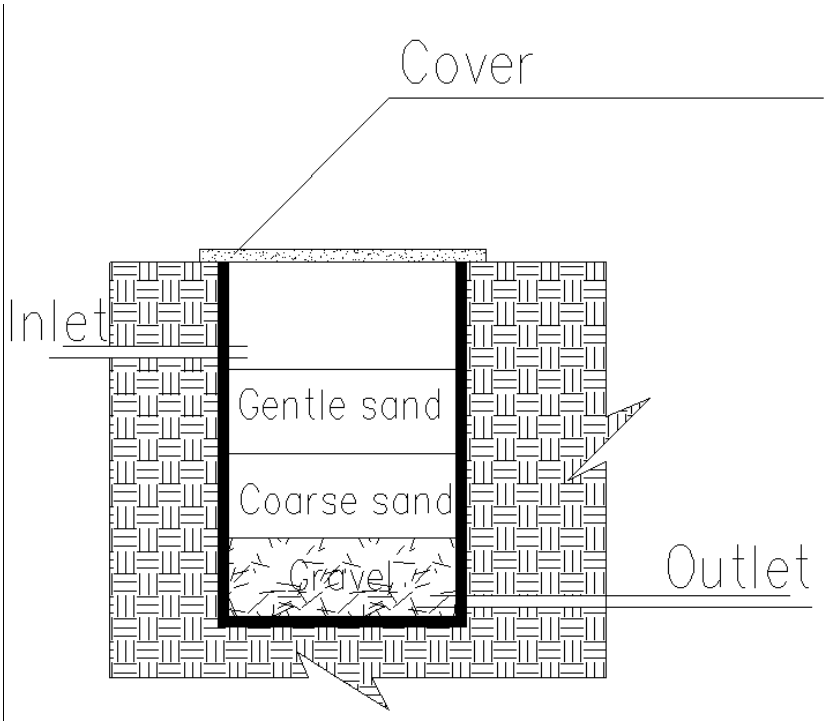


Figure 5: Water Treatment Tank

1.6.8. Fuel Storage

Fuel storage will be located in a designated, fenced zone on a concrete base to prevent soil contamination. After the construction site is completed, we will dismantle the concrete and use it to fix local muddy roads. Tanks will be labeled, covered, and protected from direct sunlight and precipitation. Emergency spill kits, extinguishers, and signage will be present. Refueling will only occur in designated areas with trained personnel. The tank will have a double walled retention basin built around it.

1.6.9. Hazardous Material Storage

Hazardous material storage will include paints, solvents, oils, and chemical additives used in construction. These will be stored in ventilated, locked containers within a covered hazardous materials shed. Each item will have Material Safety Data Sheets (MSDS) on site. Secondary containment trays will be used to prevent leakage.

1.6.10. Emergency Preparedness

Staff trained in spill response and fire control, training will be organized when workers start on site and every 6 months. A spill response protocol will be included in the Emergency Response Plan. All incidents to be logged and reported to the site HSE officer.

1.6.11. Solid Waste

Construction and domestic waste will be sorted at source. Separate bins for recyclable, hazardous, and general waste will be placed on site. The Contractor will coordinate with licensed waste handlers for off-site disposal at an approved local disposal site.

1.6.12. Hazardous Waste

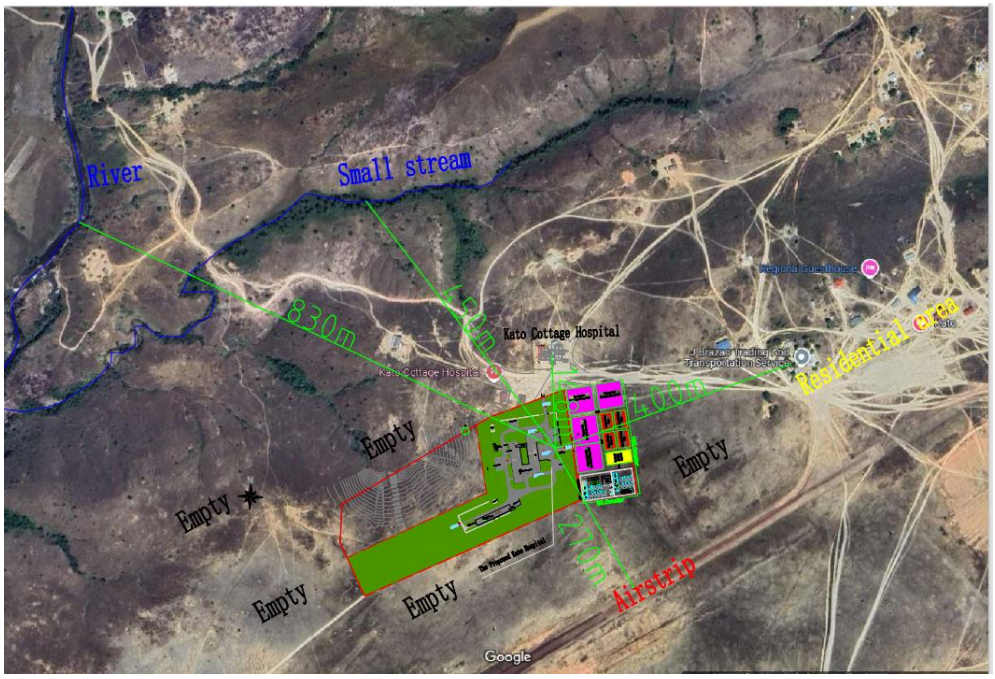
Hazardous waste will be placed in sealed containers for temporary storage in a covered, bundled area. Collected oil, paints, chemicals shall be disposed of via certified third parties or by local.

1.6.13. Construction Debris

Sorted, stockpiled temporarily in designated zones. Non-recyclable materials to be disposed at approved location. Follow more detail requirement of Waste Management Plan in **Appendix Nine.**

1.7. Surrounding Communities

The existing Kato Hospital is situated approximately 200 meters northwest of the proposed workers camp, and about 400 meters southeast is the airport runway. To the west, the proposed project site is about 15 meters away, while to the east, the airport transit hub is about 1,000 meters away. Therefore, the camp has minimal impact on the surrounding residents. Due to the distance, the construction activities at the camp will have minimal impact for the surrounding residents, but due to the influx of workers, there exists potential social impacts. Those social impacts could include conflict with residents, alcohol use, increased pedestrian and equipment traffic, social disruption, harassment and abuse, threats of physical harm, etc.



Source: Google map

Figure 6: Map of Camp Location

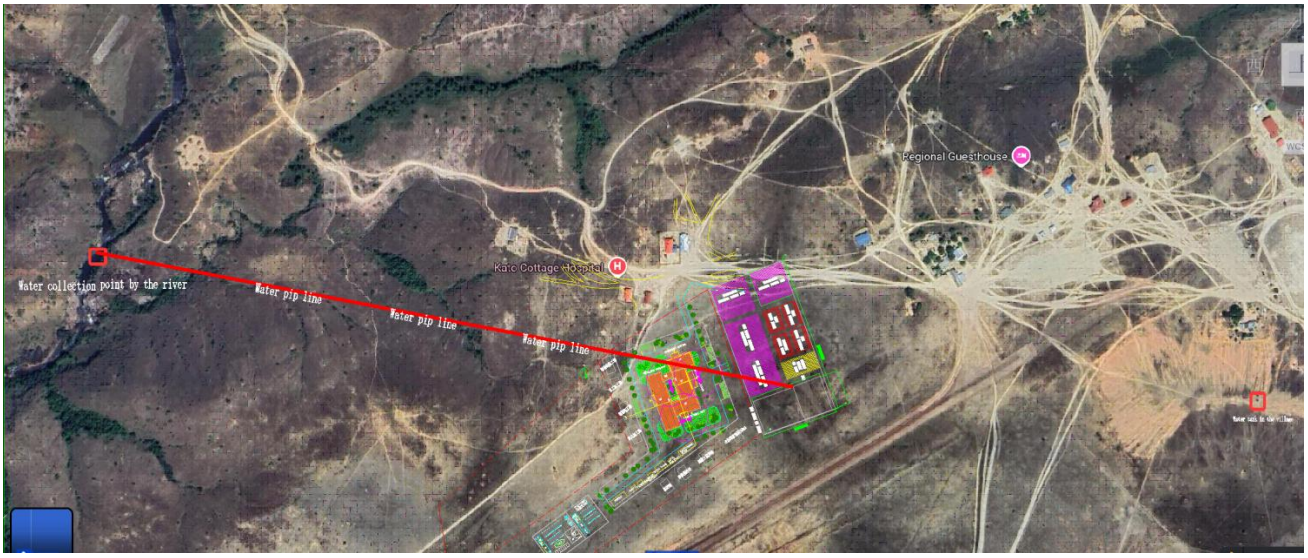
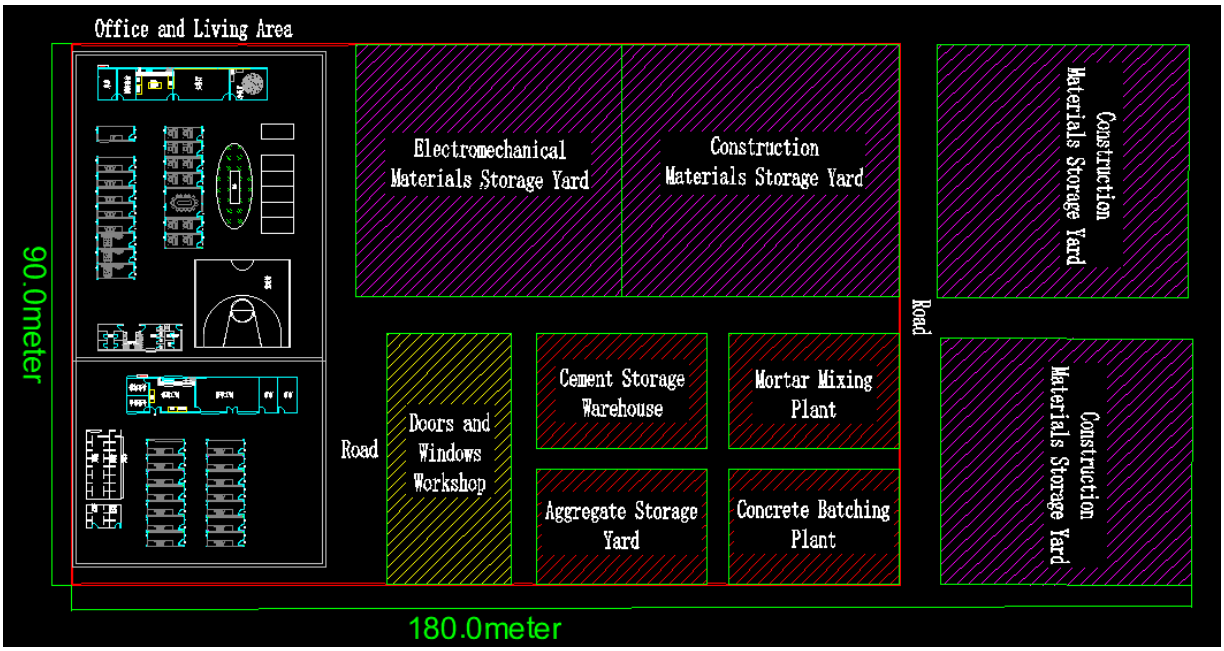


Figure 7: Map of Camp Location with Proposed Pipe Line



Source: PCI-Sinopharmintl consortium

Figure 8: Camp Layout

1.8. Associated Facilities

The construction of living quarters for the doctors and nurses by the GoG are considered associated facilities of the project. The two existing buildings on the north side of the proposed hospital can serve as residences for doctors and nurses. If the number of medical staff increases later, additional dormitories can also be built. At this stage, it is unclear what plans the GOG has regarding living quarters. Once this has been communicated to the Contractor, the overall ESA/ESMP will be updated to reflect such.

2.0. Legislative Framework

This section evaluates the existing Guyanese institutional and regulatory frameworks as well as the IDB's Environmental and Social Policy Framework that governs the execution of this project.

2.1. Environmental Protection Act (1996)

In 1996, the Environmental Protection Act was enacted to implement the environmental provisions of the Constitution. The Act is Guyana's single most significant piece of environmental legislation because it articulates national policy on important environmental topics such as pollution control, the requirements for environmental review of Projects that could potentially impact the environment, and the penalties for environmental infractions. It also provides for the establishment of an environmental trust fund.

Most importantly, the Act authorizes the formation of the Environmental Protection Agency (EPA), and establishes the EPA as the leading agency on environmental matters in Guyana. The Act further mandates the EPA to oversee the effective management, conservation, protection, and improvement of the environment. It also requires the EPA to take the necessary measures to ensure the prevention and control of pollution, assessment of the impact of economic development on the environment, and sustainable use of natural resources.

As mandated by the EPA Act (1996), PCI-Sinopharmintl is required to apply for a permit for the construction of the new Kato Hospital. PCI-Sinopharmintl has submitted an application for the whole project and is currently awaiting the due diligence procedures by the EPA. At this stage, EPA has not conducted their due diligence yet for issuing the permit. **Annex Three** will include the permit for construction, and this document will be updated to reflect such.

2.2. Environmental Protection Water Quality Regulations (2000)

These regulations require, among other matters, the registration and environmental authorization by any person/entity whose construction, installation, operation, modification or extension of any facility cause the discharge of effluents. It establishes that the EPA shall, at any time after the commencement of the Regulation, establish parameter limits of effluent that may be discharged into any inland or coastal waters or land of Guyana. Guidelines on the discharge of effluents and disposal of waste are detailed in these regulations. This legislation also includes reporting requirements, penalties for violations of standards, and permitting requirements for discharges. Additionally, standards for drinking water quality have been developed by the Guyana National Bureau of Standards (GNBS).

2.3. Environmental Protection Noise Management Regulations (2000)

Under the Environmental Projection Noise Management Regulations (2000), operations that emit noise in the execution of various activities such as construction, transport, industry, commerce and any institution are required to apply to the Agency for an environmental authorization. The regulation establishes general provisions for noise avoidance and restrictions from multiple commercial and industrial sources including sound making devices, night clubs, equipment, tools, and construction activities.

EPA and the Guyana National Bureau of Standards (GNBS), together with other relevant agencies, developed Guidelines for Noise Emission into the Environment. The regulation includes reporting requirements, penalties for violations of standards, and permitting requirements for operations that emit noise.

2.4. Environmental Protection Air Quality Regulations (2000)

This regulation establishes that the EPA shall, at any time after the commencement of the Regulation, and establishes limits for any of the contaminants specified in the Regulation. It sets the ambient air quality standards, reporting requirements, penalties for violations of standards, and permitting requirements for stationary and mobile sources of air emissions.

2.5. Sexual Offences Act (2010) (Amended 2013)

The Sexual Offences Act of 2010 reforms and consolidates the laws relating to sexual offences. The Act makes provisions for the prosecution of acts of sexual offences, and provides the framework for various measures to be implemented including establishing a National Plan for the Prevention of Sexual Offences that aims to prevent and bring awareness to sexual offences in Guyana. The Sexual Offences Act outlines the avenues available to the victim to redress by the justice system.

2.6. Amerindian Act (2006)

The Amerindian Act (2006) provides for the recognition and protection of the collective rights of Amerindian Villages and Communities, mechanisms for good governance within Amerindian villages and communities and the granting of land to these villages and communities. The Act recognizes the rights of indigenous peoples and communities and provides for participatory governance. The Act supports and encourages their right to preserve a traditional culture, cultural landscapes and traditional knowledge and languages as a minority group. Further, the Act makes provision for the self-governance and administration of lands that have been demarcated Amerindian territories, and therefore, control the land use and planning within the areas. The Act also established the National Toshaos Council (NTC) and Village Councils, which are the main governing bodies, and are concerned with the overall well-being and development of the collective and individual indigenous communities. The Act also provides additional guidelines and procedures for Amerindian communities and its interaction with other industries, as well as stipulates measures of offences and redress.

2.7. IDB's Environmental and Social Policy Framework

The IDB requires its projects to apply the set of ten Environmental and Social Performance Standards (ESPS) presented in their Environmental and Social Policy Framework (2020). The ESPS are summarized in **Table 4** below.

Table 4: IDB's Environmental and Social Performance Standards that apply to this project

ESPS	Objective
ESPS 1 **Assessment and Management of Social Risks and Impacts**	• To identify and evaluate environmental and social risks and impacts of the project. • To adopt a mitigation hierarchy to anticipate and avoid, or where avoidance is not possible, minimize, and, where residual impacts remain, compensate/offset for risks and impacts to workers, affected communities, and the environment. • To ensure that grievances from project-affected people are responded to and managed appropriately. To promote and provide engagement with project-affected people and other stakeholders throughout the project cycle and disclose environmental and socially relevant information.
ESPS 2 **Labor and Working Conditions (Project will have**	• To promote the fair treatment, non-discrimination, and equal opportunity of workers. • To establish, maintain, and improve the worker-

ESPS	Objective
direct and indirect workers on site)	management relationship. • To promote compliance with national employment and labor laws. • To protect workers, including vulnerable categories of workers such as children, migrant workers, workers engaged by third parties, and workers in the client's supply chain. • To promote safe and healthy working conditions, and the health of workers. • To avoid the use of child labor and forced labor. • To ensure accessible and effective means to raise and address workplace concerns. To support the principles of freedom of association and collective bargaining of project workers.
ESPS 3 **Resource Efficiency and Pollution Prevention (Project will consume resources and will produce waste and emissions)**	• To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities. • To promote more sustainable use of resources, including energy and water. • To reduce project-related GHG emissions. • To minimize and manage the generation of waste and impacts of pesticide use.
ESPS 4 **Community Health, Safety and Security (There are communities and foot traffic in the Project's area of influence)**	• To anticipate and avoid adverse impacts on the health and safety of the Affected Community during the project life from both routine and non-routine circumstances. • To ensure that the safeguarding of personnel and property is carried out in accordance with relevant human rights principles and in a manner that avoids or minimizes risks to the Affected Communities. To anticipate and avoid adverse impacts on the project itself from natural hazards and climate change during the project life cycle.
ESPS 5 **Land Acquisition and Involuntary Resettlement**	• To avoid, and when avoidance is not possible, minimize displacement by exploring alternative project designs. • To avoid forced eviction. • To anticipate and avoid, or where avoidance is not possible, minimize adverse social and economic impacts from land acquisition or restrictions on land use by (i) providing compensation for loss of assets at replacement cost116 and transitional hardships; (ii) minimizing disruption to their social networks and other intangible assets; and (iii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected. • To improve or restore the livelihoods and standards of living of displaced persons. To improve living conditions among physically displaced persons through the provision of adequate housing with security of tenure, and safety at resettlement sites.
ESPS 6	Not applicable to this project.

ESPS	Objective
Biodiversity Conservation and Sustainable Management of Living Natural Resources	
ESPS 7 **Indigenous Peoples**	• To ensure that the development process fosters full respect for the human rights, dignity, aspirations, culture, and natural resource-based livelihoods of Indigenous Peoples. • To anticipate and avoid adverse impacts of projects on communities of Indigenous Peoples, or when avoidance is not possible, to minimize and/or compensate for such impacts. • To promote sustainable development benefits and opportunities for Indigenous Peoples in a culturally appropriate manner • To establish and maintain an ongoing relationship based on Informed Consultation and Participation (ICP) with the Indigenous Peoples affected by a project throughout the project's life cycle. • To ensure the Free, Prior, and Informed Consent (FPIC) of the Affected Communities of Indigenous Peoples when the circumstances described in this Performance Standard are present.
ESPS 8 **Cultural Heritage**	• To protect cultural heritage from the adverse impacts of project activities and support its preservation. • To promote the equitable sharing of benefits from the use of cultural heritage.
ESPS 9 **Gender Equality**	• To establish actions to prevent or mitigate risks and impacts, including sexual and gender-based violence (SGBV). • To achieve inclusion from project-derived benefits of people of all genders, sexual orientations, and gender identities. • To promote safe and equitable participation in consultation and stakeholder engagement processes regardless of gender, sexual orientation, and/or gender identity. • To meet the requirements of applicable national legislation and • International commitments relating to gender equality.
ESPS 10 **Stakeholder Engagement and Disclosure**	• To assess the level of stakeholder interest and enable stakeholder's views to be considered in project design and E&S Performance. • To promote engagement with project people on issues that could affect or benefit them from the project • To ensure environmental and social risks and impacts of the project are disclosed to stakeholders

3.0. Description of the Environment

This section provides a detailed overview of the physical environment within the campsite's areas. To understand the possible environmental impacts that may occur due to the operation of construction campsite, it is essential to generate baseline data on the area/region. The baseline data generated will give insight into the potential critical impacts, which in turn will help in providing adequate environmental safeguards. In this assessment, the environmental characteristics of the project area were established through literature research, field sampling/measurements, laboratory analyses, and data interpretation. Data from literature researched (climate, topography, etc.) were obtained from several existing sources. Fieldwork for the baseline is planned to conduct by the last week of May 2025. The environmental data will be obtained at a later date and this document will be updated to reflect such.

3.1. Sampling Methods and Field Measurement

Both international and national guidelines and standards i.e., Guyana National Bureau of Standards (GNBS) were strictly adhered to during field sampling and measurement. A multi-disciplinary approach was adopted for the biological survey and data collection. The environmental components covered include topography, soils, climate, air, water and noise. Sampling points were established and coordinates recorded. Fast changing parameters were determined in-situ using calibrated instruments. The surveyors of the EES team coordinated field sample positions using a Global Positioning System (GPS).

3.2. Quality Assurance / Control Procedure

Standard methods and procedures were implemented during sample collection, labelling, analysis and data verification. Chain of custody procedures including sample handling, transportation, logging and cross-checking in the laboratory have also been implemented (when necessary).

The methods of analyses used in this study were those specified by GNBS and other internationally accepted analytical procedures to ensure the reliability and integrity of the data obtained. The Quality Assurance Procedure covers all aspects of the study and includes sample collection, handling, laboratory analyses, data coding and manipulation, presentation and communication of results. All equipment will be calibrated and maintained as per the requirements of the manufacturer for each type of equipment, as part of our quality control and assurance practices.

3.3. Climate

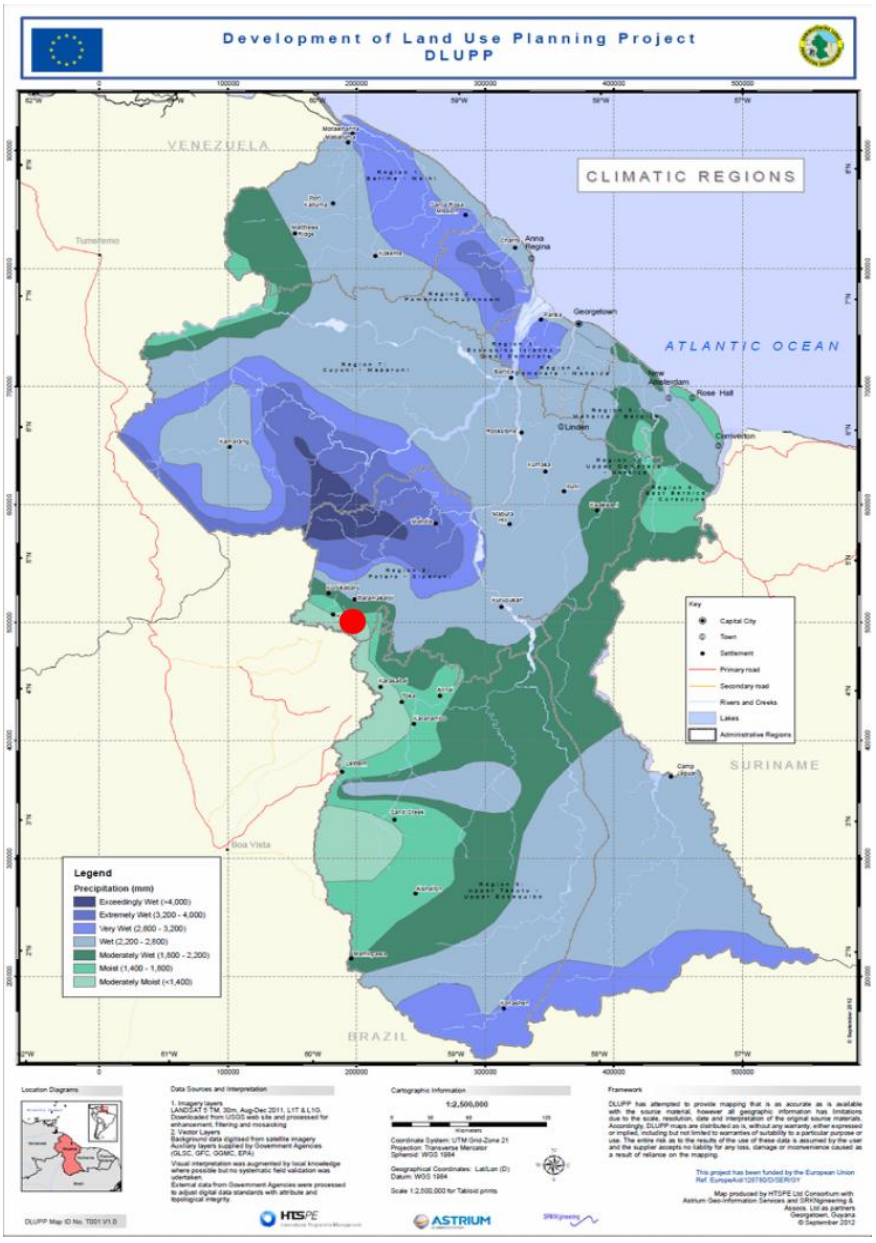
Guyana is characterized by a tropical humid climate, with high rainfall, humidity and temperatures. The rainfall pattern is influenced by the movement of the Inter-Tropical Convergence Zone (ITCZ). The tropical heat and humidity are influenced by the north easterly winds blowing from the Atlantic Ocean. Notably, Guyana's climate is also influenced by the effects of the El-Niño (higher temperatures) and la Niña (higher precipitation) phenomenon. Temperatures in Guyana vary geographically, with high altitude regions experiencing cooler temperatures than the coastal, lowland and savannah zones. Mean air temperatures in the upland regions and the interior (west) side of the country are between 20°C to 23°C. Mean air temperatures across the rest of the country range from 25°C to 27.5°C, reaching as high as 31°C, due to the stabilizing effect of the sea and the north-easterly trade winds (Ministry of the Presidency, 2015).

Precipitation patterns are generally associated with two distinct wet seasons (April to July) and (November to January) and two dry seasons where the mean annual precipitation is greater than 2000mm/year. On the contrary, Guyana's savannah experiences one wet season and a longer dry season with a mean annual precipitation of 1400-1800mm/year (Ministry of the Presidency, 2015).

Kato, located in the Potaro-Siparuni region in central-western Guyana, sits on the Guiana Highlands

and has a tropical savanna climate (also known as tropical wet and dry climate).The area experiences warm temperatures year-round, with an average annual temperature ranging from about 24°C to 32°C (75°F to 90°F). In the inland areas, temperatures can range from 18°C to 40°C (64°F to 104°F).

Rainfall is concentrated during the rainy season, which lasts from late April to late September. The rest of the year is considered the dry season. Annual precipitation is around 1,600 mm (about 63 inches), and humidity is relatively high. During the rainy season, relative humidity can reach up to 100%. Due to the terrain and climate, cloudy and foggy weather is common in the region, and wind speeds tend to be low.

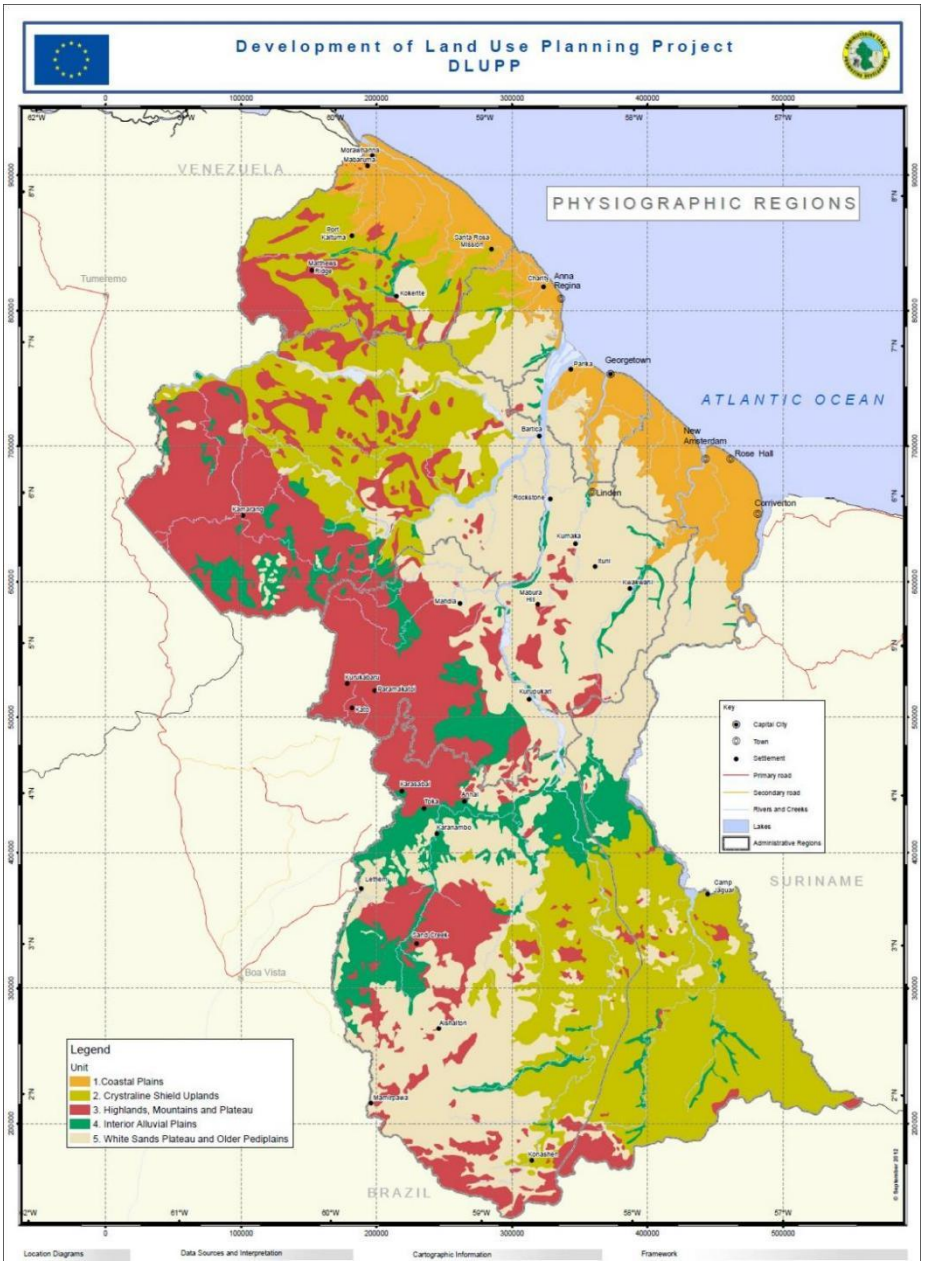


Source: (GLSC, Guyana National Land Use Plan 2013)

Figure 9: Climatic Regions of Guyana

3.4. Topography

The site is relatively flat in some sections and generally developed to undulating surfaces as it falls to the North-western section of the site with an elevation change of 30ft. The soil type in Kato and its surrounding areas is typically lateritic soil, which is common in tropical regions with heavy rainfall and high temperatures. Lateritic soils are reddish in color due to the presence of iron oxides and are generally well-drained but nutrient-poor. Despite their nutrient deficiency, lateritic soils support lush tropical vegetation, including various trees, shrubs, and endemic plant species.



Source: (GLSC, Guyana National Land Use Plan 2013)

Figure 10: Physiographic regions of Guyana

3.5. Soils

The soil in the Kato region of Guyana, located in the Central Highlands of the country, is typically composed of a mixture of volcanic ash, sand, and clay. The soil is generally acidic and rich in organic matter. Specifically:

Soil Types: The soil in the Kato region is often red or yellow, containing a high amount of minerals, which is suitable for agriculture and crop cultivation.

Drainage: Due to the relatively clayey texture of the soil, drainage is somewhat poor, but it can still support the growth of certain moisture-tolerant crops.

Soil Acidity: The soil in this region is typically acidic, which may require some pH adjustments for optimal plant growth in certain crops.

Organic Matter: The rich vegetation in the Kato region contributes to the soil's high organic matter content, providing sufficient nutrients for agriculture.

Land Use: The soil in the region is well-suited for growing root crops, tropical fruits, and other moisture-tolerant plants.

While the soil conditions in Kato are favorable for agriculture, especially for tropical crops, some plants may require soil amendments or the application of specific fertilizers to optimize soil usage.

3.6. Hydrological Situation

The hydrological situation in Kato is characterized by the presence of various water sources, influenced by its mountainous terrain, rainfall patterns, and proximity to river systems. Here's an overview of the hydrological characteristics:

Rainfall: The Kato region receives significant rainfall, typical of the tropical climate of the Central Highlands. Rainfall is distributed throughout the year, with wetter periods occurring during the rainy seasons. This results in high surface runoff and river flow, especially during heavy rainfalls.

Rivers and Streams: The region is traversed by several rivers and streams, which are key water sources. These rivers, fed by rainfall, tend to flow rapidly due to the mountainous terrain. Some of the rivers in the area feed into larger river systems, contributing to the overall hydrology of the region.

Water Availability: Due to the heavy rainfall, the Kato area generally has abundant water resources. However, the distribution of water may be uneven during dry periods, with some areas experiencing reduced water availability, particularly in more elevated regions where water runoff may be faster.

Flooding Risks: The region is susceptible to flooding during periods of excessive rainfall, especially in lower-lying areas. Flash floods can occur rapidly in the rivers and streams, affecting agricultural activities and local communities.

Groundwater: The groundwater situation in Kato is less documented, but given the high rainfall and the presence of various river systems, groundwater recharge is likely to occur frequently. However, the topography and soil permeability in some areas may affect the extent of groundwater availability.

Water Quality: The water quality in the rivers and streams of Kato is generally good, as the region is not heavily industrialized. However, soil erosion, particularly in areas with deforestation or poor agricultural practices, can lead to sedimentation in water bodies, potentially affecting water quality.

Overall, the hydrological situation in Kato is influenced by high rainfall, active river systems, and the mountainous landscape, which provide ample water resources, but also pose challenges such as flooding and water distribution during dry periods.

3.7. Noise Quality

Noise pollution is the regular exposure to elevated sound levels that can possibly lead to adverse effects in humans or other living organisms (Environmental Pollution Centers, 2017). As such, the intensity

of the sound generated by various activities is a key concern to health. Prolonged exposure to sounds louder than 80 dB is considered hazardous to hearing (EPA Guyana, 2017) therefore, human hearing is only receptive to certain sound levels. An A-weighting noise assessment provides data on existing noise levels as it establishes baseline conditions of the surrounding environment and determines to what extent if any, noise from the operations can affect the general environment and the health of staff and community.

The existing sound environment is characterized as an empty grassland zone. The Interim Guidelines for noise in specific environments are referenced on the Environmental Operation Permit, as described in **Table 5,** below were used as the guidelines for assessing the noise quality within the Camps. These included limits for categories like night-time 80 dB (18:00-06:00 hrs.) and residential (60 dB at night-time (18:00 – 06:00 hrs.).

Table 5: GNBS Interim Guidelines for Noise in Specific Environments

Categories	Daytime Limits in dB (06:00 – 18:00h)	Night-time Limits in dB (18:00 – 6:00h)	
Residential	75	60	
Institutional	75	60	
Educational	75	60	
Industrial	100	80	
Commercial	80	65	
Construction	90	75	
Transportation	100	80	
Recreational	100	18:00- 01:00hr	100
		01:00- 08:00hr	70

Source: (GNBS, 2010)

3.8. Air Quality

Air pollution is contamination of the indoor or outdoor environment by any chemical, physical or biological agent that modifies the natural characteristics of the atmosphere (World Health Organization 2012). This is becoming an increasingly significant problem to the growth and development of cities and communities. The air pollutants of major public health concern include particulate matter, carbon monoxide, ozone, nitrogen dioxide and sulphur dioxide and metals, like lead (Hedges 2004, World-Health-Organization 2012).

Particulate Matter (PM) - This is a mixture of solid particles (dust, dirt, soot, and smoke) and liquid droplets suspended in the air. These PM emissions originate from a variety of sources, such as vehicles, factories, industrial sites, construction sites, tilled fields, unpaved roads, stone crushing, and burning of wood (Hedges, 2004). Particulate matter comprises both coarse and fine particles. The coarse particles (PM10) have an aerodynamic diameter between 2.5µm and 10µm and are formed by mechanical disruption (e.g., crushing, grinding, abrasion of surfaces), evaporation of sprays, and suspension of dust. Fine particles have an aerodynamic diameter less than 2.5µm (PM2.5). These particles are formed from gas by chemical reactions; and condensation of high-temperature vapors during combustion (Fierro, 2000).

Total Suspended Particulates (TSP) - This refers to all particles in the atmosphere that are less than 100 micrometers. The amount of PM10 and PM2.5 are related to the amount of total suspended particulates (TSP) in the air (Alias, Hamzah, and Kenn 2007).

Particulate Matter Guidelines and Standards are instituted (4.8.1.1) due to short-term and long-term health effects including premature mortality, chronic respiratory disease, acute respiratory systems, decreased lung functions and aggravated asthma, persistent cough, phlegm, wheezing and physical discomfort (Fierro 2000, Alias, Hamzah and Kenn 2007). These health effects are especially associated with PM10 and PM2.5. The PM10 fraction from TSP can reach the lower regions of the respiratory tract. On the other hand, PM2.5 can absorb more toxic and carcinogenic compounds than larger particles and penetrate more easily deep into the lungs (Alias, Hamzah and Kenn 2007). Additionally, there is increased harm to the environment as PM is a major source of haze that reduces visibility, causes changes to nutrient and chemical balance of the soil and aquatic environment, erosions and staining of structures (residential, commercial, or cultural monuments) (Hedges 2004).

The purpose of the Ambient Air Quality Standards is to establish maximum limits on parameters of air quality considered desirable for the preservation and enhancement of the quality of air resources and health (Mecklenburg-County-NC 2012). Air quality standards are set by each country to protect the public health of their citizens and as such are an important component of national risk management and environmental policies. National standards will vary according to the approach adopted for balancing health risks, technological feasibility, economic consideration and various other political and social factors, which in turn will depend on, among other things, the level of development and national capability in air quality management (World-Health-Organization 2006).

Air quality data in Guyana is extremely limited given the constraints relating to the unavailability of equipment and costs associated with this type of data collection. However, advancements in the last two years have made data more accessible via Environmental Impact Assessments and real time monitoring systems that were developed by the EPA. This system can be accessed online at IQ Air.

Table 6: World Health Organization Air Quality Guidelines

Pollutant	Averaging Time	2021 AGQs
$PM_{2.5}$ µg/m^3	Annual	5
	24-hour[5]	15
PM_{10} µg/m^3	Annual	15
	24-hour	45
O_3, µg/m^3	Peak season[6]	60
	8-hour	100
NO_2, µg/m^3	Annual	10
	24-hour	25
SO_2, µg/m^3	24-hour	40
CO, µg /m^3	24-hour	4

Source: (World Health Organisation , 2021

3.9. Biological Environment

3.9.1. Fauna

Guyana has one of the most the most notable aspect of faunal diversity. There have been some efforts over the years to document the species, such as those by researchers and local organizations like the Guyana Amazon Tropical Bird Society. Based on research conducted in 2017, a total of 98 species were documented but as many as 198 are likely to occur locally (Narine 2018). This diversity is due primarily to the presence of green spaces, whether managed or unmanaged; and canals and waterways,

which support important aspects of their biology such as breeding and foraging. The following species were commonly observed within the Main Camp and Sub Camp surroundings: greater kiskadee (Pitangus sulphuratus: Conservation status-Least Concern 7), smooth-billed ani (Crotophaga ani: Conservation status-Least Concern), cattle egret (Bubulcus ibis: Conservation status-Least Concern), wattled jacana (Jacana: Conservation status-Least Concern), snail kite (Rostrhamus sociabilis: Conservation status-Least Concern) and Carib grackle (Quiscalus lugubris: Conservation status-Least Concern). Psittacidae such as the Orange-winged parrot (Amazona amazonica: Conservation Status-Least Concern) were observed close to the water bodies and drainage canals.

The fauna of the Kato region in Guyana is rich and diverse, reflecting the country's location within the Guiana Shield — one of the world's most biologically significant and least disturbed tropical forest regions. Kato, situated in the highland and forested interior of Guyana, hosts a wide variety of animal species. Here's an overview of what is present on site:
Birds: Harpy Eagle – One of the most powerful eagles in the world, occasionally seen in dense forest.
Macaws, Parrots, and Toucans – Brightly colored and vocal, commonly found in treetops.
Trumpeters and Tinamous – Ground-dwelling birds that are part of the dense forest ecosystem.

Insects and Invertebrates: Butterflies and Moths – The area is home to hundreds of species, especially during the rainy season.
Tarantulas and Other Spiders – Common in the forest floor and tree hollows.
Beetles and Ants – Very abundant, playing crucial roles in decomposition and the food chain.

3.9.2. Flora

The terrestrial vegetation at the camp sites project is relatively sparse, with only tropical savanna grasses present and no other types of plants.

Figure 11: Savanna Grasses at Campsite

4.0. Environmental and Social Assessment

4.1. General Methodology

The primary purpose of an Environmental and Social Assessment (ESA) is to predict the impacts resulting from the construction and use of the campsite. Impacts can be direct, indirect, or induced, as defined in **Table 7.**

Table 7: Impact Designation Definitions

Designation	Definition
Direct	Impacts that result from a direct interaction between the Project and a resource/receptor (e.g., between disturbance of a plot of land and the habitats on that plot of land that are affected).
Indirect	Impacts that follow from the direct interactions between the Project and its environment as a result of subsequent interactions within the environment (e.g., viability of a species population resulting from loss of part of a habitat as a result of the Project occupying a plot of land).
Induced	Impacts that result from other activities (which are not part of the Project) that happen as a consequence of the Project (e.g., influx of camp followers resulting from the presence of a large Project workforce).

The assessment of impacts proceeds through an iterative process that considers four questions as illustrated in **Figure 12.**

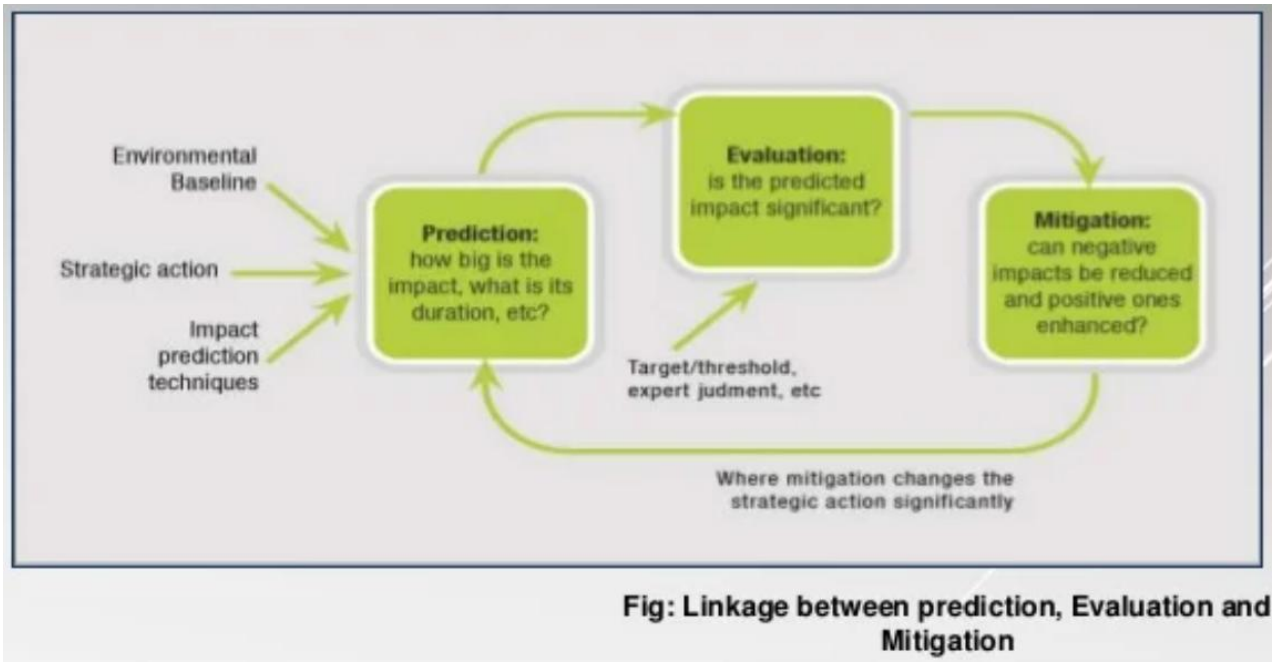


Figure 12: Impact Prediction and Evaluation Process

These questions are expanded in Steps 1 through 4 below.

4.1.1. Step 1: Predict Impacts

An ESA evaluates potential project impacts by predicting and quantifying to the extent possible the magnitude of impacts on resources (e.g., water and air) or receptors (e.g., people, communities, wildlife species, habitats). Magnitude is a function of the following impact characteristics:

- Type of impact (i.e., direct, indirect, induced).
- Nature of the change (what is affected and how).
- Size, scale, or intensity.
- Geographical extent and distribution (e.g., local, regional, international).

Duration and/or frequency (e.g., temporary, short term, long term, cyclic, permanent). Magnitude describes the actual change that is predicted to occur in the resource or receptor. The magnitude of an impact considers all the various dimensions of a particular impact in order to make a determination as to where the impact falls on the spectrum (in the case of adverse impacts) from negligible to large. Some impacts can result in changes to the environment that may be immeasurable, undetectable, or within the range of normal natural variation. Such changes can be regarded as essentially having no impact and are thus characterized as having a negligible magnitude. In determining the magnitude of impacts on resources and receptors, embedded controls (i.e., physical or procedural controls that are planned as part of the project design) are taken into consideration (e.g., the magnitude of impacts on stream water quality from construction takes into consideration the effectiveness of proposed sediment and erosion control measures).

In addition to characterizing the magnitude of impact, the sensitivity/vulnerability/importance of the impacted resource/receptor is characterized. A range of factors is considered when defining the sensitivity/ vulnerability/importance of the resource/receptor:

1. Where the resource is physical (e.g., a waterbody), its sensitivity to change and extent (on a local, national, and international scale) are considered.
2. Where the resource/receptor is biological or cultural (e.g., the riverine environment), its importance (e.g., its local, regional, national, or international importance) and its sensitivity to the specific type of impact are considered.
3. Where the receptor is human, the vulnerability of the individual, community, or wider societal group is considered, including if they are vulnerable groups or minorities (i.e., Indigenous peoples, African descendants). Other factors may also be considered when characterizing sensitivity / vulnerability / importance, such as legal protection, government policy, stakeholder views, and economic value.
4. As in the case of magnitude, the sensitivity/vulnerability/importance designations themselves are universally consistent (i.e., Low, Medium, and High), but the definitions for these designations would vary on a resource/receptor basis.

4.1.2. Step 2: Evaluate Impacts

An ESA evaluates the significance of a potential project impact by considering, in combination, the magnitude of the impact and the sensitivity/vulnerability/importance of the impacted resource or receptor. The assignment of a significance rating facilitates decision-makers and stakeholders to understand how much weight should be given to the issue in their process. In the case of positive impacts, the significance is assigned as Positive. Significance was assigned for each impact using the matrix shown in **Table 8.** This matrix applies universally to all resources/receptors.

Table 8: Evaluation of Significance of Impacts

Impact Significance Matrix		Sensitivity/Vulnerability/Importance of Resource/Receptor		
		Low	**Medium**	**High**
Negative Impacts				
Magnitude of Impact	**Negligible**	Negligible	Negligible	Negligible
	Small	Negligible	Minor	Moderate
	Medium	Minor	Moderate	Major
	Large	Moderate	Major	Major
Positive Impacts				
Magnitude of Impact	**NA**	Positive	Positive	Positive

In terms of what the various significance designations represent, the following considerations are provided:

An impact of **Negligible significance** is one where a resource/receptor (including people) would not be affected by a particular activity, or the predicted effect is deemed to be imperceptible or is indistinguishable from natural background variations.

An impact of ***Minor significance*** is one where a resource/receptor would experience a noticeable effect, but the impact magnitude is sufficiently Small (with or without mitigation) and/or the resource/receptor is of Low sensitivity/vulnerability/importance. In either case, the magnitude should be well within applicable standards.

An impact of ***Moderate significance*** has an impact magnitude that is within applicable standards but falls somewhere in the range from a threshold below which the impact is Minor, up to a level that might be just short of breaching a legal limit. To design an activity so that its effects only just avoid breaking a law and/or cause a major impact is not best practice. The emphasis for Moderate impacts is therefore on demonstrating that the impact has been reduced to a level that is as low as reasonably practicable. This does not necessarily mean that impacts of Moderate significance have to be reduced to Minor, but rather that Moderate impacts are being managed effectively and efficiently.

An impact of ***Major significance*** is one where an accepted limit or standard may be exceeded, or large magnitude impacts occur to highly valued/sensitive resources/receptors.

An impact of ***Positive significance*** is one that has been identified as having a positive effect on the receptor/resource.

The goal of an impact assessment is to get to a position where a project does not have any Major residual impacts (i.e., after management measures are considered), certainly not ones that would endure into the long term or extend over a large area. However, for some aspects, there may be Major residual impacts after all practicable management options have been exhausted. An example might be

the visual impact of a facility. It is then the function of the decision-makers and stakeholders to weigh such negative factors against the positive ones, such as employment, in coming to a decision on a project, and to promote offsets or compensation.

4.1.3. Step 3: Management and Enhancement

An ESA process aims to ensure that project decisions are made in full knowledge of their likely impacts on the environment and society. A vital step within the ESA process is therefore the identification of measures that could be taken to mitigate potential impacts of the project being assessed. This process involves identifying where potentially significant impacts could occur and identifying ways of mitigating those impacts as far as reasonably possible. The mitigation hierarchy was used for this ESA, in which preference was given to trying to avoid or minimize the impact before considering other types of mitigation (i.e., remedy, compensate, offset):

1. Avoid — remove the source of the impact
2. Minimize — reduce the magnitude of the impact
3. Mitigate — "repair" the results of the impact after it has occurred
4. Compensate/offset — address the loss or change to a resource by replacing the loss/change in kind or with a different resource of equal value.

4.1.4. Step 4: Residual Impacts

Once management measures are determined, the next step in the impact assessment process is to determine the residual impact significance. Residual impacts are the impacts that are predicted to remain after both embedded controls and committed management has been taken into consideration. In most cases, the sensitivity/vulnerability/importance of a receptor is unaffected by proposed management measures: the management measure is typically intended to reduce the magnitude of a predicted impact, thereby reducing its overall significance.

4.2. Environmental and Social Assessment Objectives

The objective of the environmental and social assessment is to evaluate the potential environmental and social risks and impacts during the construction and use of the campsite, and to formulate corresponding environmental and social management plan based on the assessment results.

The environmental and social management plan should comply with the requirements of the IDB's E&S policy framework, enhance the positive impacts of campsite' construction and use, and avoid, mitigate, manage and monitor potential adverse impacts and risks. This ESA has the following main objectives:

1. Identify areas of environmental and social impacts caused by the construction and use of the campsite;
2. Evaluate various activities that may cause environmental and social impacts (including campsite' construction and post-construction use);
3. Evaluate possible environmental and social impacts and their levels;
4. Provide a basis for developing an environmental and social management plan.

4.2.1. Environmental and Social Assessment Scope

This ESA considers the construction phase and the use phase (and decommissioning) of the campsite, and focuses primarily on the existing physical, biological and social environment within the campsite' boundaries. However, in the case of certain impacts such as air quality and noise, impacts may extend beyond the campsite. As such, both a Direct Area of influence and an Indirect Area of Influence are defined for the campsite as follows below.

4.2.1.1. Direct Area of Influence

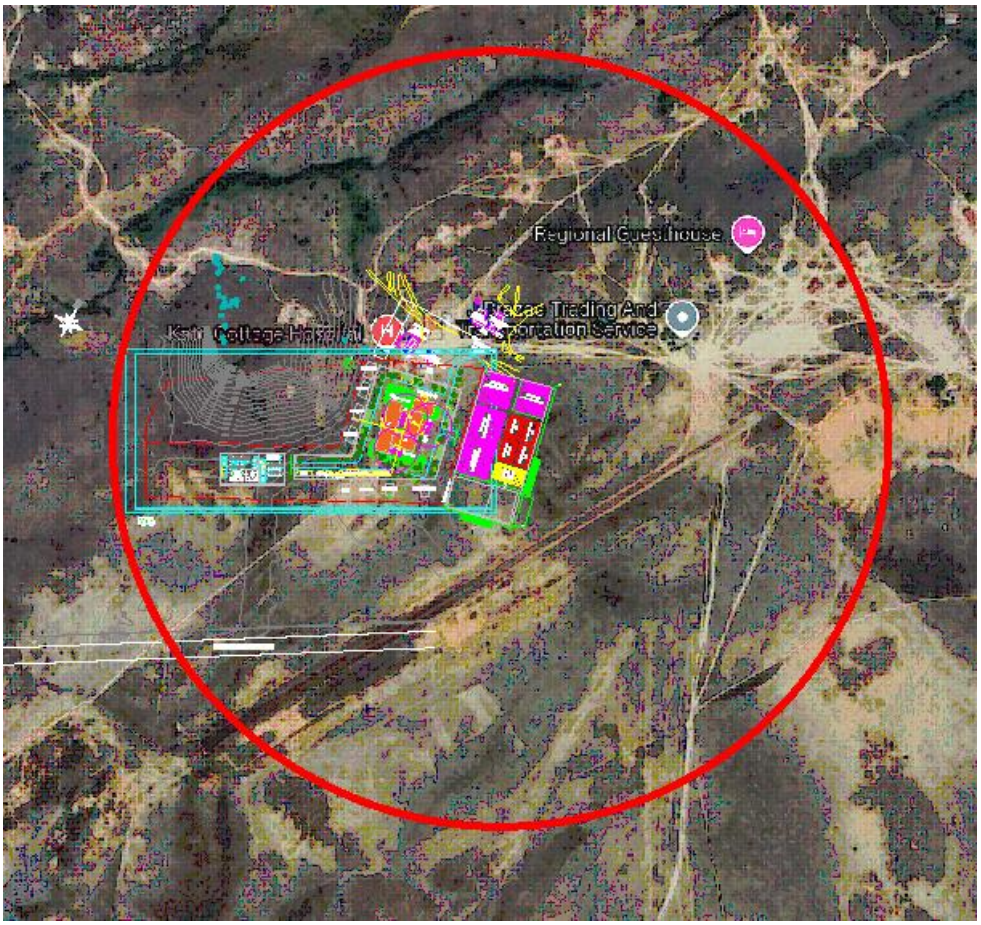
The Direct Area of Influence (DAI) for the campsite is defined as within the boundaries of the campsite, where the majority of the environmental and social impacts are expected to occur and/or be experienced most acutely, namely:

- Campsite construction area (area to be used after completion).
- Roads access to the campsite.
- Utilities: Electricity poles, drainage structures, and underground water pipes outside the campsite.

Please see **Figure 13** below for DAI.

4.2.1.2. Indirect Area of Influence

The Indirect Area of Influence (IAI) for the campsite is defined as within a 500M radius surroundings of the campsite where some impacts such as dust and noise disturbance could occur, but generally with a lower level of intensity than in the Direct Area of Influence. Please see **Figure 13** below for IAI.



Source: Google Map

Figure 13: DAI and IAI of the Camp

4.3. Environmental and Social Assessment

This chapter will summarize and draw conclusions from the environmental and social assessment of the campsite based on the content of the previous chapters.

Since the construction and use of the campsite will take place in fixed areas (within the camp boundaries), no impacts on biodiversity or cultural resources are expected.

4.3.1. Social Assessment

This section mainly describes the social impact, including the activities that may cause social impact, the magnitude of impact, and details. Please see **Table 9.**

4.3.2. Environmental Assessment

This section mainly describes the environmental impact, and identifies the activities that may cause environmental impact, the magnitude of impact, and details. The conclusion of the environmental impact assessment is shown in **Table 9.**

4.3.3. Summary

The entire fourth chapter assesses the environmental and social impacts during the construction and use of the camp, and impacts not related to the camp are not listed. The construction and use of the camp will have positive social impacts, as PCI-Sinopharmintl Consortuim will do anything possible to hire local to create job opportunities and drive local economic development. A Local Hire Plan (section 6.5.3) is developed for the campsite.

The overall environmental impact caused by the construction and use of the campsite was deemed to be **“Minor”.**

Table 9: Environmental and Social Management Impacts and Mitigation Measures

Source of Impact	Potential Impact and Relevant Management Plan Objective	Mitigation & Management	Frequency	Responsibility
Community Relations	Unauthorized movements of construction workers (during and after working hours) could result in trespassing, damage to local land and property and create amongst local residents a sense of their privacy being invaded. Residents may feel vulnerable and there may be increasing incidents of crime and or violence and threats to the safety of community members. Disparity of pay, increase in disposable income and potential availability of illegal substances, illicit or culturally inappropriate lifestyle choices, leading to increased tension between local communities and the workers at camps.	Contractor shall enforce a 'closed' camp policy unless otherwise agreed by Contractor. Workers will be strictly prohibited from leaving camps for non-work related activities and interacting with the local community unless agreed by Contractor. Contractor shall implement suitable measures to maintain the closed camp policy which may include perimeter security fences, security controls and guard houses, monitoring transfer of goods into and out of camps for contraband and stolen goods. Contractor, as appropriate, shall provide adequate recreation facilities for workers to reduce incentive for leaving camps during leisure time. If community members or local businesses express grievances in relation to camp related activities/operations, the Project shall respond to the grievance in accordance with the GRM and SEP.	Continuous monitoring; Monthly training	Contractor

Source of Impact	Potential Impact and Relevant Management Plan Objective	Mitigation & Management	Frequency	Responsibility
		Village council may request that camp related activities/operations be amended to address community grievances. Contractor shall comply with these requests The Project shall be cognizant of the environment in which it works and shall, where practicable, respect local cultural events such as religious events, funerals and the like The Project shall provide training to all workers, national and expatriate on camp management including: • A briefing on camp rules, including closed camp policy, behaviour between fellow workers and the community; • Procedures for dealing with camp related complaints, worker issues and community issues (as per Stakeholder Engagement Plan, SEP); and • Community relations orientation. The objective of this orientation will be to increase awareness about the local area and cultural sensitivities		

Source of Impact	Potential Impact and Relevant Management Plan Objective	Mitigation & Management	Frequency	Responsibility
Health	Potential interaction between workers, persons engaged in illicit activities and the community increases the risk of spreading communicable diseases, particularly in more remote communities	Contractor shall comply with the Minimum Health Requirements for Project Execution and the Community Health and Safety Management Plan which set out requirements and management measures on controlling communicable diseases within camps and to outside communities.	Monthly health inspections; Ongoing surveillance	Contractor
Waste Management, Pollution and Environmental Impacts	Camp has the potential to have off site pollution impacts from waste disposal, emissions and spills. Camp operations may also cause environmental issues including deteriorating water quality, erosion, sedimentation, noise and air quality issues. These factors have the potential to affect the community if not adequately managed.	Contractor shall exercise all reasonable due diligence to conduct its operations in a manner that will minimize pollution. Contractor shall comply with the Waste Management Plan and Hazardous Materials Management Plan which define requirements to contain, transport, handle and dispose of camp wastes and hazardous materials to avoid impacts to human health and the environment	Weekly inspections; Quarterly audits	Contractor
Camp location	Siting of camps may restrict or impede access to areas for the local community. Construction camps may result in a noticeable increase in traffic, noise, air emissions and light intrusion which could negatively affect the amenity and lifestyle of nearby communities and pose a potential safety issue.	Potential camp location will be selected in consultation with village council and affected community will be subsequently consulted. The Project shall refer to those Environmental Management Plan's (EMP) that include mitigation/avoidance measures that	Pre-construction consultation; Annual review	Contractor & Village Council

Source of Impact	Potential Impact and Relevant Management Plan Objective	Mitigation & Management	Frequency	Responsibility
		relate to the local community, including: • Noise and Vibration Management Plan; • Air Emissions Management Plan; and • Waste Management Plan		
In-Migration	There is a strong likelihood of in-migration into areas around the construction camps. People from In-migration can result in disputes and sometimes violence between the new settlers and the resident community. Migrants moving into existing villages may increase demand and inflate prices for housing, goods and services. Increased population and development of new and uncontrolled settlements increase pressure on infrastructure, services and resources. The increased traffic from in-migration may also result in greater theft and smuggling of goods.		Quarterly assessments; As needed	Contractor with Local Authorities
Worker Welfare and Living Conditions	Construction workers living in camps may encounter stresses and discomforts that negatively impact their health and welfare. These stressors or discomforts may be caused by: • Poor living conditions (accommodation, ablution and sanitary, health, recreation catering and laundry). Cultural issues (nationality, religion, discrimination and harassment, etc.).	Where there is a difference in camp accommodation, Contractor shall manage this issue in an open and transparent manner. No reduction in standards shall be allowed because of worker's race, gender or nationality, although distinctions may be appropriate based on seniority of individuals and job classifications.	Monthly facility checks; Ongoing	Contractor

Source of Impact	Potential Impact and Relevant Management Plan Objective	Mitigation & Management	Frequency	Responsibility
	Personal security (crime, and emergencies).	*Contractor may provide facilities, as necessary and to the extent practicable, to satisfy the religious needs and customs of its workforce.*		
Quality and Safety	Construction defects (e.g., substandard materials, workmanship errors) or safety incidents (e.g., worker injuries, equipment failures) may lead to structural failures or casualties. Ensure compliance with ASTM/OSHA standards for materials and processes, achieving zero major incidents and a defect rate <1%.	- Third-party certification and lab testing prior to material delivery. - Daily inspections and documentation of critical milestones (e.g., rebar tying, concrete pouring). - Mandatory PPE use and safety training.	Daily inspections; Monthly audits	Contractor
Environmental Responsibility	Waste pollution, carbon emissions, or water misuse may damage ecosystems, triggering community protests or legal disputes. Achieve 90% waste recycling rate, reduce carbon emissions by 20%, and protect biodiversity in affected areas.	- Implement waste segregation and recycling programs. - Use solar-powered equipment and low-emission machinery. - Conduct ecological restoration (e.g., replanting native vegetation).	Weekly monitoring; Quarterly audits	Contractor
Reporting and Documentation	Missing records or delayed reporting may lead to accountability gaps, compliance risks, or project delays. Establish a real-time, transparent documentation system to ensure traceability and audit compliance.	- Use cloud platforms (e.g., BIM 360) for synchronized logs and reports. - Require daily submission of inspection, safety, and environmental data. - Monthly backups and encrypted archives.	Real-time logging; Monthly backups	Contractor

Source of Impact	Potential Impact and Relevant Management Plan Objective	Mitigation & Management	Frequency	Responsibility
Conflict Resolution	Internal disputes (e.g., labor conflicts) or external stakeholder conflicts (e.g., community protests) may disrupt project timelines and reputation. Resolve all conflicts promptly, ensuring ≥90% employee satisfaction and <48-hour response time to community complaints.	- Establish anonymous grievance channels and mediation committees. - Hold regular community meetings to preemptively address concerns. - Develop escalation protocols (e.g., third-party arbitration).	On-demand resolution; Quarterly feedback surveys	Contractor
Risk for the solar panels forced labor	supply chain of raw materials and manufacturing	Solar companies are required to map their supply chains thoroughly to track where materials (especially polysilicon) originate. Block chain and digital product passports are emerging as tools for enhancing transparency.	Pre-construction audit	Contractor

Table 10: Conclusion of the Social Impact Assessment

Phase	Impact-Causing Activities	Details of Impact	Mitigation Measures/Enhancement	Category of Impact (Positive/Negative)	Magnitude of Impact
Construction Phase	• Housing construction • Drainage structure construction • Other construction activities	• During the construction of the camp, PCI-Sinopharmintl Consortium will recruit a certain number of local employees, ranging from 10 to 15. These construction activities provide job opportunities for local workers and promote local employment. • When PCI-Sinopharmintl Consortium builds camp, PCI-Sinopharmintl Consortium will purchase construction materials such as rive sand, stone, etc. from the local area, which to a certain extent has promoted the development of the local economy.	Overall Economic Benefits: Job creation PCI-Sinopharmintl Consortium will hire to hire local workforce and help to Growth local Business during the lifetime (2.5 years) of the project.	Positive	/

Phase	Impact-Causing Activities	Details of Impact	Mitigation Measures/Enhancement	Category of Impact (Positive/Negative)	Magnitude of Impact
Use phase (Residence, production)	• Production activities in the camp • Campsite cleaning • Kitchen related activities • Other activities that require participation of local employees	• During the use phase after the camp is built, because the camp not only has living areas but also production areas (such as concrete mixing plants, Doors and Windows Workshop etc.), a certain number of local employees (such as construction workers, cleaners, etc. The number of people will be around 10) need to be hired. Therefore, these activities also provide employment opportunities for local workers and promote local economic development.		Positive	/
Health and Safety of Workers	• Movement of machinery • Operation of asphalt and concrete plants • General construction activities	Employees are at risk for machinery mishaps, and exposure to particulate matter from the concrete plants. Heat exhaustion from construction activities among other incidents	Employers must ensure that appropriate PPE is provided for employees and that employees receive training on how to use PPE and how to handle emergency situations for the project. Ensure that signage is visible throughout the compound. Workers health and safety	Negative	Major
Health and Safety of Community	General construction activities	The construction activities contribute to the release of dust and emittance of noise to neighboring communities	Dust suppression mitigation measures should be used where applicable. Regular consultation should be conducted to understand the impact. Monitor air quality. Community health and safety plan	Negative	Moderate

Phase	Impact-Causing Activities	Details of Impact	Mitigation Measures/Enhancement	Category of Impact (Positive/Negative)	Magnitude of Impact
Labour conditions	Campsite living and short deadlines to complete project.	Living spaces for the campsite can deteriorate causing discomfort to employees. Tight deadlines can pressure employees to work overtime or work under stressful conditions.	Ensure that employees are trained and informed on how to maintain living spaces and practice good house-keeping. Ensure that if employees work overtime, they are adequately compensated for their efforts. All labour condition guidelines should be followed to ensure the safety of employees.	Negative	Major
Gender Base-Violence	Imbalance of genders	The workforce will consist of male dominated environment with a lesser ratio of women. Employers would need to take complaints of how genders speak to each other and sexual assault seriously.	Conduct awareness and educational sessions with employees to sensitize them on gender base violence and how to handle it. Community health and safety plan	Negative	Moderate
Racial Violence	Diversity is culture and skin tone persons working together	People working with diverse groups that do not appreciate their workmates, look down at them and are racially motivated can have negative impacts on the employee and the execution of tasks.	Conduct awareness and educational sessions with employees to sensitize them on racial issues and how to handle it.	Negative	Moderate
Demobilization of the Campsite	Removal of equipment Removal of buildings	The removal of existing equipment and buildings generates waste.	Machinery can be reused for future projects. Materials can be recycled for future projects or sold to other entities. Materials for disposal should be handled by a professional waste management company or local village council. The land should be revegetated if there are no other uses. Decommission plan	Negative	Moderate

Table 11: The conclusion of the Environmental Impact Assessment

Camp Name	Phase	Impact-Causing Activities	Impact	Details of Impact	Mitigation measures	Category of Impact (Positive/Negative)	Magnitude of Impact
Air quality							
Camp	Construction Phase	• Site filling and leveling • Construction material • Transportation	Generates dust and pollutes the air/Decreased air quality	• Construction materials such as sand and soil will generate dust. • Short-term duration, just a few.	Apply wet suppression to the process. Avoid work that generates dust during periods of heavy winds.	Negative	Minor
		• Building fence and house	Air pollution	• **Dust generation:** Earth Works. Materials handling: delivery and construction. Cement Mixers.	**Water Spraying:** Regularly spray water on construction sites. **Cover Materials:** Store materials like sand and cement. **Material Handling:** Clean up and stock pile high (3 m). **Employers:** Must ensure that appropriate PPEs (Personal protective equipments).	Negative	Minor

		• Use of machinery and equipment • Excavation and construction of drainage structures • Installation of large facilities (e.g., Concrete mixing plants) • Construction material transportation	Air pollution	• Exhaust gas generated during the use of machinery will cause air pollution. • The camp construction only uses a small amount of mechanical equipment (possibly including 1 excavator, 1 grader, 1 roller, 2 dump trucks, and 1 loader), so there will be very little exhaust gas. But trucks will come to the site with sand, stone and other construction materials. There will be gaseous emissions from these vehicles.	Ensure that machinery does not idle for prolonged periods. Also, vehicles will be serviced regularly to ensure they are in good working condition.	Negative	Minor
		• Other construction activities • Storing materials	Air pollution/ decreased air quality	• Construction activities using sand, cement, soil and machinery may cause different levels of air pollution.	Monitor air quality and check in with neighbors on the impact of dust. For stock piles be stored to ensure: **Cover Materials:** Store materials like sand and cement **Material Handling:** Clean up and stock pile high (3 m). **Water Spraying:** Regularly spray water on stockpile when needed.	Negative	Minor

Camp	Operational Phase Use phase (Residence, production)	• Construction material transportation	Air pollution	• Dump trucks transport construction materials (Sand, gravel, etc.) to the silo in the camp. (Silo will be used to store cement not sand and stone). • Loaders are used to transport construction materials in the camp.	Ensure that trucks are covered with tarpaulin during the transport process to prevent raw materials from falling or blowing.	Negative	Minor
		• Use of machinery and equipment • Operation of batching plant etc.	Air pollution	• Exhaust gas generated during the use of machinery will cause air pollution. • The main machines are loaders (commonly used, 1 to 2 loaders) and cranes (not commonly used, 1 Crane).	Ensure that machinery does not idle for prolonged periods. Regular servicing and maintaining vehicles according to manufacturer's specifications.	Negative	Negligible
		• Dump trucks entering and leaving the campsite	Air pollution	• Dump trucks daily entering and leaving the camp will generate dust.	Ensure that wet suppression is used to control the dust on the roads.	Negative	Moderate
		• Daily mixing construction (Concrete mixing, asphalt mixing)	Air pollution	• The mixing plants are equipped with spray washing devices, so there is almost no dust.	Ensure spray washing mechanism is always functional	Negative	Negligible
Water quality							
Camp	Construction Phase	• Mechanical refueling • Construction of access road	Contamination to surface water	• During refueling, diesel or gasoline accidentally leaked onto the ground.	Ensure that spill kit is close by and properly used to clean up the spill	Negative	Minor
		• Cement construction		• The random discarding of cement packaging tape may pollute surface water.	Eliminate the improper disposal of cement packaging. Waste Management Plan	Negative	Negligible

		• Contamination of Water by sediments	Contamination to surface water	• Raw materials will be stockpiled. The presence of heavy rain fall can cause materials to run off into close by water ways.	Ensure that materials are stockpiled for an extended period of time. Create breaks in the soil to slow down the flow of sediments to water ways.	Negative	Minor
Camp	Operation Phase (Residence, production)	• Fuel/Oil storage	Contamination to surface water	• Fuel/Oil leakage to the ground due to damage to the storage tank or improper operation.	Storage tanks should be contained within a bond wall of 110% of its capacity. Use a spill kit to clean up spills. Rain shelters will be constructed for fuel storage areas and tanks.	Negative	Moderate
		• Daily work and residence	Contamination to surface water	• Water pollution caused by littering of kitchen and household garbage. • Water pollution caused by kitchen, washroom facilities	Ensure that the kitchen and garbage is cleaned daily. Segregation of waste. Appropriate disposal of waste. Liquid waste will be directed to the septic tank. Waste Management Plan Oil Spill Prevention plan	Negative	Negligible
Camp	Use phase (Residence, production)	• Fuel and Oil storage	Groundwater contamination	• Damage to fuel/oil storage tanks caused fuel/oil to seep into the ground.	Ensure that fuel/oil storage area is inspected daily. Remove pollution source, explore remediation of soil.	Negative	Moderate

		• Septic tank	Groundwater contamination	• Leakage caused by septic tank damage.	Inspect septic tank regularly, Repair septic tank. Water effluent to public drainage will be tested (quarterly) to meet the industrial effluent discharges guidelines.	Negative	Moderate
Camp	Use phase (Residence, production)	• Fuel and Oil Diesel storage	Pollution of nearby freshwater rivers	• Damage to fuel/oil storage tanks caused diesel to seep into the ground.	Ensure that fuel/oil storage area is inspected daily. Remove pollution source, explore remediation of soil.	Negative	Moderate
Noise							
Camp		• Power supply	Noise	• During the use of the campsite, the use of the generator will make noise.	House generators in an enclosed space.	Negative	Minor
	Construction Phase/ Operation phase/Use phase (Residence, production)	• Use of mechanical equipment	Noise	• Noise from the operation of machinery and equipment.	Operate equipment between 6:00hrs and 18:00 hrs. Monitoring of noise will be done monthly. Limit worker exposure to high noise activities.	Negative	Minor
		Noise from Trucks	Noise	Noise from the movement of trucks.	Operate equipment between 6:00hrs and 18:00 and try not to arrange transportation operations at night? Enforce speed limit. Horns use management. Take off trucks engine where is not in use	Negative	Minor

Soil Quality							
Camp	Land preparation	Land Clearing	Destruction of species habitat Destruction of flora species	• The land to clear of all types of species to develop the campsite. Any grass that can be buffers for dust protection has been removed. • Fauna has been displaced which forces them to find new habitats or be killed during the process.	If dust generation is excessive, grass can be replanted in spaces that can accommodate vegetation should be done.	Negative	Moderate
	Operation	Spillage of oil/fuel Septic tank leakage	Soil contamination	• Soil can be contaminated due to oil/fuel spillage and a delayed clean up response. • Unfiltered water leaking into the soil can affect ground water sources.	Inspect regularly and act immediately when leaks are observed. Have Spill prevention procedure and spill clean procedures and training on this.	Negative	Moderate
		Poor drainage system Heavy rain all	Flooding of Land	• Poor drainage system and heavy rainfall leaves the campsite vulnerable to flooding. This can damage ground level equipment, make living quarters uncomfortable for employees and slow down the progression of work especially for the concrete plants.	Ensure that booth campsite have adequate drainage at the perimeters of the compound. Ensure that ditches/trenches are cleaned regularly.	Negative	Major

4.4. Environmental and Social Impacts of the Campsite Decommissioning

The decommissioning of campsite can have both environmental and social impacts. Addressing these impacts is crucial for ensuring that the process is managed responsibly and that long-term consequences are minimized.

Environmental Impacts and Mitigation measures

1. Land degradation

Impact: The demolition process may cause soil erosion, surface damage and vegetation loss.
Mitigation measures:

Control the movement of construction vehicles: Limit the use of construction vehicles to reduce compaction and damage to the land.

Vegetation protection: Try to protect existing vegetation and transplant it when necessary. Soil cover: Use soil cover during the demolition process to reduce erosion.

2. Waste generation

Impact: The demolition process will generate a large amount of waste, including construction waste, waste and possible hazardous materials.
Mitigation measures:

Waste classification: Classify waste and separate recyclables, hazardous waste and general garbage.

Waste treatment: Organic Waste Small-scale composting (pits or bins) Eco-friendly and useful for farming; Combustible waste closed small incinerators reduces toxic emissions; Recyclables community sorting & collection reduces pollution, some economic value; Hazardous waste village-level collection points to be transported for safe disposal.

Resource recovery: Try to recycle and reuse demolition materials such as wood, metal and concrete.

3. Noise pollution

Impact: The noise generated by demolition operations may cause interference to nearby residents and wildlife.
Mitigation measures:

Noise control: Use low-noise equipment and arrange demolition work within the specified time to reduce the impact on the surrounding environment.

Noise barriers: Set up noise barriers around the demolition area to reduce noise transmission.

4. Air pollution

Impact: Dust and exhaust gas during the demolition process may affect air quality.
Mitigation measures:

Spray dust suppression: Regularly spray water mist during demolition work to reduce dust.

Cleaning equipment: Regularly clean and maintain equipment to reduce exhaust gas missions.

5. Water pollution

Impact: Waste and chemicals during the demolition process may flow into water bodies, causing water pollution.
Mitigation measures:

Anti-leakage measures: Set up anti-leakage devices during the demolition process to prevent waste or chemical leakage.

Wastewater treatment: Treat and clean up wastewater generated during the demolition process to ensure that it meets emission standards (Establishment of a Sedimentation Tank for Wastewater

Treatment).

6. Ecological impact

Impact: Demolition may affect local ecosystems and biological habitats.

Mitigation measures:

Ecological assessment: Conduct an ecological assessment before demolition to understand the potential impact of demolition on the local ecology.

Conservation measures: Take measures to protect affected plants and animals, and relocate or restore them when necessary.

Social Impacts and Mitigation measures

1. Economic Impacts:

Impact: The closure of camp can impact local economies, especially if the camp were a major source of income for local businesses or workers.

Mitigation measures: Work with local stakeholders to develop economic transition plans. Consider initiatives such as job creation programs.

2. Health and Safety:

Impact: The decommissioning process can pose health and safety risks to workers and nearby communities.

Mitigation measures: Implement stringent health and safety measures, including proper training and protective equipment for workers. Monitor and manage any potential health risks to the surrounding community.

3. Community Relations:

Impact: The decommissioning process can affect relationships with local communities, especially if they are not properly engaged.

Mitigation measures: Engage with the community throughout the decommissioning process; Provide transparent information about the project and address any concerns promptly; Establish channels for ongoing communication and feedback;

Strategies for Mitigation

Develop a Comprehensive Decommissioning Plan: Include environmental and social impact assessments as part of the plan. Address potential issues proactively and implement mitigation measures as needed.

Engage Stakeholders: Work with local communities, regulatory agencies, and other stakeholders to ensure that their concerns are considered and addressed.

Monitor and Report: Implement a monitoring program to track the environmental and social impacts of decommissioning. Provide regular reports to stakeholders and regulatory bodies.

Provide Support: Offer assistance to displaced workers and affected communities to facilitate a smooth transition.

Educate and Train: Ensure that all personnel involved in the decommissioning process are trained on environmental and social impact mitigation strategies.

By proactively managing these impacts and implementing effective mitigation strategies, PCI-Sinopharmintl Consortium can minimize the negative consequences of decommissioning workers' campsite and contribute to sustainable and responsible project completion.

5.0. Environmental and Social Management Plan

5.1. Introduction

This section presents a general overview of the Environmental and Social Management Plans (ESMP) based on the environmental and social impacts assessed in Chapter 4. This ESMP includes the relevant plans for mitigating environmental and social impacts that PCI-Sinopharmintl Consortium will adhere to. This ESMP will be continuously updated based on changes in activities during the construction and use of the camp. The following plans are included as part of the ESMP for the campsite at Kato:

1. Environmental Management Plan
2. Decommissioning Plan for the Campsite
3. Stakeholder Engagement Plan
4. Grievance Redress Mechanism
5. Occupational Health and Safety Plan
6. Labour Management Plan
7. Workers' Influx Management Plan
8. Community Health and Safety Plan
9. Emergency Response Plan
10. Drainage Management Plan
11. Waste Management Plan
12. Oil Spill Plan
13. Driver Safety Management Plan
14. Socio-Cultural Analysis (to be included as part of the overall ESA/ESMP)
15. Indigenous People's Plan (to be included as part of the overall ESA/ESMP)

5.2. Guiding Principles of the ESMP

This ESMP follows the general principles of the "Plan, Do, Check, Review" cycle as described below, and outlined in **Figure 14.**

Figure 14: Plan, Do, Check, Review Cycle

Plan:

- Define the objective and scope.
- Identify problems or opportunities.
- Analyze current conditions and root causes.
- Develop a strategy or action plan with timelines and responsibilities.

Do:

- Implement the plan on a small scale (pilot or trial phase if needed).
- Train the people involved and allocate resources.
- Collect data during the implementation.

Check:

- Monitor and evaluate the results.
- Compare the outcomes to the plan.
- Identify any deviations or issues.
- Gather feedback and data for analysis.

Review

- Decide whether to adopt, adjust, or abandon the plan.
- Standardize the successful solution or revise the plan if results were unsatisfactory.
- Share lessons learned and apply improvements on a larger scale.

5.3. Mechanisms for Auditing, Reporting and Adjustments

Auditing and adjustment are essential parts of a successful ESMP. Auditing systems include inspections and monitoring to confirm proper implementation of the ESMP, as well as effectiveness of management measures. Corrective actions include response to out-of-control situations, non-compliances, and non-conformances. Actions also include those intended to improve performance.

The parties involved in overseeing the day-to-day activities of project implementation will conduct continuous monitoring to ensure that all project personnel (PCI-Sinopharmintl Consortium and its sub-contractors) are fulfilling their obligations under this ESMP. Monitoring will be conducted to ensure compliance with the commitments in this document and to evaluate the effectiveness of operational controls and other measures intended to mitigate potential impacts.

5.4. Environmental Management Plan

This section presents a summary of the environmental risks and controls that have been identified for the construction and use of the campsite. Please see **Table 12**.

Table 12: Environmental Management Plan

AIR QUALITY AND DUST MANAGEMENT			
Objective(s)	To ensure the impacts of air quality and dust on adjacent areas and the campsite are minimized.		
Management Strategy	Air quality and dust issues managed principally by emission controls at source, and administrative controls during works.		
		Responsibility	**Timing**
Control(s)	The air quality impacts could be minimized using the following measures: ▪ Maintain all construction equipment in accordance with manufacturer's specifications. ▪ Where dust is identified as an issue, dust control measures will be implemented. These will primarily be the use of water pips but may include surface treatments. ▪ Avoid burning non-vegetative wastes (refuse, etc.) at construction sites. ▪ Avoid unnecessary idling of construction equipment or delivery trucks when not in use. ▪ Keep work vehicles clean (particularly tires) to avoid tracking dirt around and off the site. ▪ Cover work vehicles transporting friable materials to prevent materials being spread around and off the site. ▪ Area to be disturbed minimized. Clearance lots to be approved by Project Manager. ▪ Implement the external grievance mechanism to follow-up on dust and/or exhaust emissions complaints being received by the community and workers. ▪ Use of dust masks by workers. ▪ Keep machinery and equipment turned off when not in use to reduce exhaust gas generation. ▪ Keep a certain distance between the production area and the working and living area in the camp to reduce the impact of dust on the working and living areas. ▪ Use water suppression to reduce dust from dirt roads. ▪ Cover Stockpiled materials. ▪ Revegetate certain parts of the yard if possible.	Maintenance manager Site Engineer HSE officer Truck drivers	Daily inspection during camp construction and use Measurements quarterly to compare against baseline.
Performance Indicator(s)	No complaints from adjacent premise, workers and/or community. Air quality tests		

AIR QUALITY AND DUST MANAGEMENT			
Monitoring	Daily inspection of works sites to occur, including: • Visual check for dust crossing the campsite boundaries. • Visual check of high potential dust areas, such as haul roads, stockpiles and operational areas. • Conduct air quality monitoring every 6 months.	HSE officer	Daily routine inspections
Reporting	Any complaints or incidents to be reported to the project manager.	HSE officer	When available
Corrective Action(s)	• Investigate cause of excessive dust. • Implement controls immediately (e.g., water carts, corrective maintenance of potentially malfunctioning equipment). • Implement corrective measures prior to the recommencement of site works. • Implement administrative controls if required, such as rescheduling of dust generating activities to more favorable weather conditions.	HSE officer	When incidents occur

NOISE MANAGEMENT			
Objective(s)	1. To minimize the impacts of noise on the amenity of the surrounding areas. 2. Construction activities undertaken in accordance with best practice controls.		
Management Strategy	Noise to be managed primarily through administrative and equipment controls during the construction and use phase of the campsite.		
		Responsibility	**Timing**

Control(s)	Noise impacts associated with the campsite could be minimized using the following measures: • Maintain all construction equipment in accordance with manufacturer's specifications. • If possible, schedule construction and rehabilitation work during daylight hours when increased noise levels are more tolerable. • If possible, schedule construction and rehabilitation work to minimize activity during peak periods of tourism and recreation (weekends, holidays, etc.). • Avoid unnecessary idling of construction equipment and trucks. • Include communications regarding construction as part of the external communication mechanisms to stakeholders to inform adjacent receptors (e.g., commercial and industrial businesses) of construction activities. • Pre-start checks and maintenance schedules to ensure equipment performance as required. • Noise-dampening equipment to be used on equipment with excessive noise generating characteristics. • Implementation of grievance mechanism. • Use of auditive equipment by workers. • Keep machinery and equipment turned off when not in use to reduce noise. • Keep a certain distance between the production area and the working and living area in the camp to reduce the impact of noise, and build sound insulation measures when necessary.	Maintenance manager Site Engineer HSE officer Truck drivers	Daily inspection during camp construction and use. Noise monitoring weekly.
Performance Indicator(s)	Noise levels within range No complaints from adjacent premise, workers and/or community.		
Monitoring	• Daily inspection of works sites to occur; • Service logs for equipment/machinery used on site. • Noise monitoring	HSE officer	Daily routine inspections
Reporting	Any complaints or incidents to be reported to the project manager.	HSE officer	When available
Corrective Action(s)	• Investigate cause of excessive noise. • Implement corrective measures prior to the recommencement of site works. • Reschedule of noise-generating activities to reduce noise annoyance.	HSE officer	When incidents occur

OIL USE AND STORAGE MANAGEMENT			
Objective(s)	Any oil spill is prohibited. Protecting surface water and groundwater resources.		
Management Strategy	Use equipment and facilities that meet the requirements, build oil storage areas that meet the requirements, implement effective management measures, and strengthen daily inspections.		
		Responsibility	**Timing**
Control(s)	Oil use and storage management measures are as follows: • Use oil tanks that meet safety and storage requirements, generally provided by the diesel manufacturer, and check the certificate before installation. • Use good fuel pumps and fuel pipes, which are usually provided by diesel manufacturers. Check the certificate of conformity before installation and use. • The oil storage area and its use are under the responsibility of a dedicated person (usually the manager of Material and Equipment Department). Other personnel are prohibited from entering to prevent leakage due to incorrect operation. • When using temporary diesel barrels to refuel machinery during camp construction, use refueling equipment (such as electric refueling pumps) and it is strictly forbidden to directly dump diesel. • Clean the oil storage area regularly to keep it clean. Regularly maintain oil storage tanks and refueling equipment to keep their good performance. • In the case of spillage, the storage facilities will have a concrete containment oversize with 110% volume capacity to prevent post contamination of soil and drainage and waterways	Manager of the Material and Equipment Department Site Engineer HSE officer	Daily inspection during camp construction Regular inspection Water quality monitoring
Performance Indicator(s)	No oil leakage accidents. No spills to surface waters. No contamination of soil or surface / ground waters. No complaints from adjacent premise, workers and/or community.		
Monitoring	Daily inspection and Regular inspection; Check for leaks, rust, cracks, or damage; Ensure containers are clearly labeled (type of oil, hazard symbols);Confirm area is clean, dry, and well-ventilated; Check that spill response materials (absorbents, PPE) are stocked and accessible; Ensure drip trays or bunds are in place under storage containers; Log daily amount used and refilled .Inspect hoses, pumps, and machinery for oil leaks or residue; Review storage permits, MSDS sheets, and inspection logs; Verify stock levels and check expiration dates if applicable; Check for presence of fire extinguishers (Class B) near storage; Inspect waste oil containers and check for proper labeling and disposal method. Service logs for oil storage tanks and refueling equipment.	HSE officer Manager of the Material and Equipment Department	Daily routine inspections
Reporting	Any complaints or incidents to be reported to the project manager.	HSE officer	When available

Corrective Action(s)	• In case of oil leakage, stop using the oil immediately and seal the oil storage area. • Take measures to deal with the leaked oil to prevent it from seeping into groundwater and nearby freshwater rivers. • Before re-activating the oil storage area, all facilities and equipment should be inspected and put into use only if they meet the requirements.	HSE officer	When incidents occur

SEPTIC TANK CONSTRUCTION AND USE MANAGEMENT			
Objective(s)	Sewage and filth leaks are prohibited. Protecting surface water and groundwater resources.		
Management Strategy	Build a septic tank that meets the requirements. Regularly inspect the area around the septic tank.		
		Responsibility	**Timing**
Control(s)	Septic tank construction and use management measures are as follows: • Build a strong and well-sealed septic tank. The septic tank should be made with concrete to specifications according to GNBS standards. • The construction standards for septic tanks are as follows: 1 Build a 3-chamber septic tank, the first chamber is used to treat sewage sediment, the second and third chambers are used for water seepage, but it can only seep downwards; 2 Sewage from septic tanks cannot be discharged; Therefore, Wastewater shall be treated in accordance with local disposal methods.. 3 The capacity of the septic tank is 0.3 cubic meters per person per day. For example, if there are 100 people, a 30 cubic meter septic tank is needed. • Septic tanks are closed projects. After construction, they need to be tested for sealing and pipelines. Only when they meet the requirements can they be buried and put into use. • Regularly check the area around the septic tank for leaks. Septic tanks should be emptied by an authorized agent when necessary.	HSE officer	Regular inspections
Performance Indicator(s)	No odor leakage and dirt leakage. No spills to surface waters. No contamination of soil or surface waters. No complaints from adjacent premise, workers and/or community.		

Monitoring	• Regular inspection. • Ground water testing can be initiated if there is suspicion that the septic tank has polluted the soil. • Surface water testing should be routine done every six months for the facility	HSE officer	Regular inspections
Reporting	Any complaints or leakage incidents to be reported to the project manager.	HSE officer	When available
Corrective Action(s)	• If there is a septic tank leak or pipe blockage, stop using the septic tank immediately and repair or dredge it. • Take measures to deal with leakage to prevent pollution of surface water or nearby freshwater rivers.	HSE officer	When incidents occur
WATER QUALITY MANAGEMENT			
Objective(s)	No domestic or industrial sewage/solid waste is discharged into nearby freshwater bodies or pollutes surface water. Ensure that the quality of potable water meets hygiene and health requirements		
Management Strategy	Strictly control the discharge of domestic and industrial sewage. Ensure that the source of edible water is reliable and meets drinking standards.		
		Responsibility	**Timing**
Control(s)	Water quality management measures are as follows: • Build a special sewage treatment pool, and treat domestic sewage and sewage **water** operation separately; sewage can be discharged only after treatment. • Strengthen personnel education and management, prohibit chefs from directly spilling kitchen wastewater on the ground, and prohibit employees from directly spilling domestic sewage on the ground. • For edible water, you can contact the local water company to provide edible water, which can meet drinking and living needs after purification. If you take water from a well, it must go through a strict purification process and be tested for water quality. It can only be used for drinking by employees after it meets the drinking requirements. • Regularly check the area around the septic tank for leaks.	HSE officer	Regular inspections
Performance Indicator(s)	No water pollution incidents occurred. No complaints from adjacent premise, workers and/or community. Water quality tests within range		

Monitoring	• Regular inspection and identification. • Surface water will be tested every 6 months for pH, Turbidity, Total Suspended Solids, Total Dissolved Solids, Oil and grease, Chemical Oxygen Demand and Biological Oxygen Demand. • Water purification equipment certificate/water quality test report.	HSE officer	Regular inspections
Reporting	Any complaints or Pollution incidents to be reported to the project manager.	HSE officer	When available
Corrective Action(s)	• If water pollution occurs, stop production operations immediately, take measures to purify the polluted water resources,and • Conduct water quality testing.	HSE officer	When incidents occur

HOUSEKEEPING AND WASTE MANAGEMENT (INCLUDING HAZARDOUS WASTE)			
Objective(s)	Reduce waste volume, maximize recycling, reuse and recovery, and prevent any construction waste/litter entering the environment.		
Management Strategy	Minimize environmental impacts through appropriate controls and site inductions of employees and sub-contractors.		
		Responsibility	**Timing**
Control(s)	Housekeeping and Waste Management measures are as follows: • Provide appropriate waste bins, type, volume, and service frequency to accommodate anticipated waste streams. Bins must be clearly labelled. • Enforcement of a strict no dumping policy especially in drainage canals and areas nearest the waterways. • Enforcement of a strict no burning policy (According to the Environmental Protection (Hazardous Wastes Management) Regulations 2000. • Separate hazardous waste from non-hazardous waste. • Place of trash disposal bins in the campsite. • Provide information regarding waste management in site specific inductions, including waste separation and importance of securing vehicle loads. • Contact specialized waste disposal and recycling companies to handle and recycle waste, especially hazardous waste. Waste Management or any other certified waste disposal company or by the local village council. • Installation of appropriate fencing and containment in waste managementareas • Implement management measures to prevent and manage spills, per Waste Management Plan. • Recycle oil and waste lubricants to be used for construction equipment (e.g., chains saws) Storage containers must be clearly labelled and storage in a containment designated area. • Storage of excavation material in designated laydown areas away from drainage channels and water bodies.	HSE officer	Daily routine inspections Regular inspections

	• Selection of laydown areas away from drainage channels and water bodies. • Appropriate training for staff on waste management practices and safe handling and storage of hazardous materials. • Use of PPE for the handling of hazardous materials and waste. • Follow the Waste management plan in **Appendix Eight.**		
Performance Indicator(s)	• Hazardous materials all appropriately disposed. • Recycling of all recyclable construction metal waste. • Records kept of waste leaving site.		
Monitoring	• Daily inspection of work site to occur. Review of waste bins (% full, time to next service). • Waste volumes leaving site from Waste Disposal Company.	HSE officer	Daily inspections
Reporting	• Any complaints or Environmental pollution accidents need to be reported to the project manager. • Environmental incident reports. • PCI-Sinopharmintl Consortium will submit Environmental Annual Report to the EPA on or before the date of compliance with the EPA permit as the requirement in the EPApermit.	HSE officer	When available
Corrective Action(s)	• Investigate cause of inappropriate waste disposal. • Implement controls. • Review cause of issue and develop response, such as variation to bin size, service schedule or waste separation awareness.	HSE officer	When incidents occur

5.4.1. Other Environmental Control Measures during Camp Construction

Table 13: Other Environmental Controls during Camp Construction

Environmental control measures	Responsible
Before Camp Construction	
Induction Environmental awareness training for all personnel and workers	HSE Officer
Make Site environmentally friendly (Waste Bins for different kind of waste)	Site Engineer/ HSE Officer
Inspecting condition of the heavy equipment	Equipment Administrator / HSE Officer
Visiting nearby receptors to exchange contact information in case of complaints.	HSE Officer
Require all construction workers to sign a code of conduct (appendix A)	HSE Officer
In camp construction	
Implement daily HSE toolbox meetings to increase environmental awareness.	HSE Officer
Implement measures in the environmental management plan	Site Engineer
Monitor execution of the control measures.	Environmental Officer/ HSE Officer
Report and correct daily environmental issues.	Environmental Officer/ HSE Officer
Construction completed	
Clean up all project waste. (Stones, steel, iron, etc.)	Site Engineer
Restore vegetation	Site Engineer
Finalize environmental performance report	Environmental Officer/ HSE Officer

5.4.2. Control Measures for Associated Facilities

Table 14: Control Measures for Associated Facilities

Associated Facility	Potential Impact	Mitigation Measures	Responsible Party
Access Road Construction	Land disturbance, dust, noise, potential damage to community paths and farmland	Use existing paths where possible; water spraying; construction schedule consultation with villagers	Contractor / Local Village

Associated Facility	Potential Impact	Mitigation Measures	Responsible Party
Power Supply Infrastructure	Visual intrusion, tree clearing, disruption to land use	Minimize vegetation clearing; replant trees; route alignment through already disturbed areas	Contractor
Water Supply System	Potential impact on local streams or groundwater sources	Conduct hydrogeological study; ensure sustainable abstraction rates; protect intake from contamination	Contractor
Sewage and Wastewater System	Groundwater pollution risk; community health hazard	Use sealed septic tanks or small-scale treatment plant; regular maintenance; staff training	Contractor
Workers' Camp	Sanitation, water usage, community conflict risk	Provide clean water, adequate toilets, waste management, and code of conduct for workers	Contractor
Associated facilities	Noise and Lighting Community Relations Fire and Safety	Schedule rest hours and limit night-time activities; use downward-shielded lighting to minimize light spillover. Engage with the local community regarding the purpose and use of the accommodations; establish a grievance mechanism. Equip buildings with fire extinguishers; clearly mark emergency exits; post safety instructions and conduct periodic safety checks.	Contractor

5.4.3. Training

All project personnel will be qualified to do the particular job that they are performing and undergo further training to meet the needs of the working environment, as required.

All personnel, regardless of position, will be given specific job oriented Health, Safety, and Environment (HSE) training prior to starting work and as necessary thereafter. All personnel will be trained on general awareness of environmental issues and specific procedures aimed at the avoidance of environmental damage as well as human health and safety. Daily toolbox talks will be conducted before work begins with small groups of employees according to the work to be accomplished for the day. Meetings will keep employees informed about safety hazards and gather their concerns about health and a safety of the project. Emergency response training and drills will be conducted throughout the life of the project with employees and new employees. New staff, contractors, and visitors will be

given basic induction training and follow project HSE procedures.

5.4.4. Signage

Health and Safety signage is important for communicating important safety information to employees, management and visitors who may traverse the project sight on a daily basis. The safety signs for the facility can be categorized into 5 different types:

Prohibition Sign (Red) - No Smoking, No Entry, No Unauthorized entry, No parking
Mandatory Signs (Blue) – Wear Protective Gears
Warning Signs (Yellow) – Construction area, Go Slow
Safe Conditions Signs (Green) – Emergency Exit, Muster Point,
Fire equipment (red) – Fire extinguisher, Alarm

A sight safety sign will be erected at the entrance of the worksite to notify visitors of the campsite procedures.

5.4.5. Indigenous Peoples Plan and Socio-Cultural Analysis

Given the interventions in hinterland indigenous communities, the Environmental and Social Action Plan (ESAP) includes requirements for site-specific ESAs/ESMPs with a more detailed Socio-cultural Assessment (SCA) and Indigenous Peoples Plan (IPP) to be conducted for this site prior to the start of any construction works for the hospital. These plans will be completed and included as part of the final ESA/ESMP at a later date.

APPENDIX

APPENDIX ONE - DECOMMISSIONING PLAN

This section presents a general overview of the actions that will be undertaken in the decommissioning phase of the campsite. This plan presents the options for the closure of the campsite and the removal or reuse of workers accommodation, concrete batching, storage facilities and materials stored at the campsite. Infrastructure and facilities at the campsite include a concrete batching plant, construction camps, stockpile areas, electricity transmission line, water and internet connection.

1. *Overview*

Objectives:

The decommissioning plan provides a framework for the decommissioning and restoration of the campsite after the termination of its operations. This plan is designed to effectively guide the decommissioning of the PCI-Sinopharmintl Consortium camp to minimize environmental, financial and social impacts. The objectives of the decommissioning plan are to:

- Provide a framework for the decommissioning of the campsite.
- Explore different options for decommissioning of the facilities at the campsite.
- Ensure that measures are in place to dispose of all waste (including hazardous waste) that are on-site, clean up any contaminated area at the campsite.
- Include measures that will be implemented to address loss of employment due to the closure of the campsite.
- Detail the schedule of all decommissioning activities.
- The decommissioning plan shall confirm with national legislative and IDB requirements.

Scope:

The scope of this decommissioning plan includes:

- Buildings within the campsite, such as houses, septic tanks, basketball courts, etc.;
- Public utilities related to the camp, such as water, electricity, networks, etc.;
- Large facilities, such as concrete mixing plants, mortar mixing plants, etc.;
- Stockpile areas and machine workshop.

Timeline:

The campsite will be decommissioned after PCI-Sinopharmintl Consortium fully completes the Hospital Project, and the demolition is expected to take 1 to 2 months.

2. *Assessment*

Survey: Conduct a thorough survey of the campsite to document existing conditions, including structures, utilities, and any hazardous materials.
Inventory: Create a comprehensive inventory of all items to be decommissioned, including buildings, facilities, utilities, equipment, and waste materials.

3. *Policy Requirements*

Legal Requirements: Ensure compliance with local, country regulations, including environmental and safety standards.
Agency Requirements: Ensure compliance with the EPA environmental and safety standards.
IDB Requirements: The decommissioning plan for the camp must comply with the environmental and social framework policy requirements of the IDB and must be approved by the IDB before further construction can proceed.

4. Safety Plan

Risk Assessment: Within two months before the camp is decommissioned, PCI-Sinopharmintl Consortium will conduct a comprehensive assessment of the safety risks involved in the camp decommissioning construction process and produce an assessment report.
Safety Measures: Implement safety protocols, including the use of personal protective equipment (PPE) and emergency response plans.
Training: Provide training for all personnel involved in decommissioning on safety procedures and equipment usage.

5. Decommissioning Procedures

a) Obtaining approval for decommissioning:

IDB Approval: Prepare a detailed demolition plan, including equipment and housing disposal, and submit it to IDB for approval before proceeding to the next step of demolition.
EPA Approval: Before the camp decommissioning construction, prepare relevant documents according to EPA's requirements to obtain EPA's approval or no objection.

b) Utility Disconnection:

Water and Sewer: Properly disconnect and cap water and sewer lines.
Electricity: The solar power supply system will be retained for use by the hospital.
PCI-Sinopharmintl Consortium will reach a demolition or decommissioning agreement or contract with these professional companies two months before the camp is decommissioned and hand it over to them for professional handling.

c) Building and facility demolition:

Building Demolition: Some basic building demolition will be performed by PCI-Sinopharmintl Consortium.
Facility dismantling: large facilities will be dismantled by the manufacturer or professional companies.
PCI-Sinopharmintl Consortium's mixing plants, such as concrete mixing plants and mortar mixing plants, will be dismantled by the manufacturers of the mixing plants. For structures like water supply system that are built by professional companies, the system can be retained for future use by the hospital and surrounding residents.
If there are some buildings or structures that the Village Council is willing to keep, PCI-Sinopharmintl Consortium will reach a purchase and sale agreement with the landowner and sell them to the village.

d) Waste Management:

Sorting: Sort waste into categories such as hazardous, recyclable, and general waste.
Disposal: PCI-Sinopharmintl Consortium will hand over the waste disposal, including hazardous waste, Hazardous waste village-level collection points to be transported for safe disposal.
Documentation: Keep records of all waste disposal activities, including transfer notes and disposal certificates. Documentation will be done by PCI-Sinopharmintl Consortium.

e) Site Cleanup:

Soil and Water Testing: Water in the drains will be tested to detect any contamination present. Levels of contaminant will be compared to baseline conditions and measures will be but in place to clean up the water if baseline conditions are exceeded.
Restoration: The site will be restored to its baseline conditions and meet any requirement in the EPA permit. Restoration may include soil stabilization and replanting. We will implement measures including seed sowing to rehabilitate the vegetation in the campsite.

f) Resource Management

PCI-Sinopharmintl Consortium will make a complete inventory of all resources at the campsite. Resources mainly include equipment, materials and some items.

Ruse and Redistribution: If PCI-Sinopharmintl Consortium obtains another project in Guyana, PCI-Sinopharmintl Consortium will allocate these resources to the other project after completing legal and compliant procedures.

Inventory Management: PCI-Sinopharmintl Consortium will evaluate equipment and materials for potential reuse or resale. PCI-Sinopharmintl Consortium will ensure that all actions are legal and compliant.

Donations: PCI-Sinopharmintl Consortium will donate usable items to charitable organizations if appropriate.

g) Documentation and Reporting

Records: PCI-Sinopharmintl Consortium will maintain comprehensive records of all decommissioning activities, including dismantling, waste management, and site cleanup.

Final Report: PCI-Sinopharmintl Consortium will prepare a final report summarizing the decommissioning process, compliance with regulations, and the final condition of the site.

Stakeholder Communication: Provide updates to stakeholders and regulatory bodies (IDB/EPA/MOH) as required. PCI-Sinopharmintl Consortium will notify stakeholders who are likely to be affected by the decommissioning activities.

h) Final Inspection and Approval

Inspection: PCI-Sinopharmintl Consortium will conduct a final inspection of the site to verify that all decommissioning activities have been completed.

Certification: Obtain any necessary certifications or approvals from regulatory agencies (IDB/EPA/MOH) or project stakeholders.

i) Post-Decommissioning Monitoring

Monitoring Plan: PCI-Sinopharmintl Consortium will develop a plan for monitoring the site after decommissioning to ensure that no new issues arise.

Reporting: Provide periodic reports as required by regulations or stakeholders.

j) Lessons Learned

Review: Conduct a review of the decommissioning process to identify successes and areas for improvement.

Recommendations: Document lessons learned and make recommendations for future decommissioning projects.

k) Additional Considerations

Community Engagement: Engage with local communities to address any concerns and provide support if needed.

APPENDIX TWO – LOCAL HIRE PLAN

A Local Hire Plan is designed to ensure that local community's benefit from job opportunities created by PCI-Sinopharmintl Consortium, such as the construction and decommissioning of campsite or other large-scale operations. Given the small number of local personnel in Kato, the available workforce is limited. Based on surveys and assessments, it is estimated that approximately 10 local workers can be employed.

1. *Objectives*

Employment Goals:
PCI-Sinopharmintl Consortium expects to recruit 5 to 10 drivers and operators of various types, and about 15 ordinary laborers from Kato and nearby communities.

Community Benefits:
PCI-Sinopharmintl Consortium's camp will create jobs for the Kato and nearby communities.

2. *Stakeholder Engagement*

Community Consultation: Engage with local community leaders, organizations, and potential workers to understand their needs and expectations. Please see **Appendix Three** (Stakeholder Consultation Plan) for details.
Partnerships: Build partnerships with local community, educational institutions, and employment agencies to facilitate local hiring.

3. *Recruitment Strategy*

Advertising: Use local media, community boards, and online platforms to advertise job openings. Ensure that job postings are accessible and clear.
Job Fairs and Information Sessions: Host job fairs and information sessions in the local community to provide information about job opportunities and application processes.
Application Assistance: Offer assistance with job applications, Request the assistance of the local village committee in recruiting labor from nearby or neighboring villages.

4. *Training and Development*

Skills Training: Provide training programs to local candidates to enhance their skills and make them eligible for available positions. This could include workshops, certifications, and on-the-job training.
Mentorship: Implement mentorship where experienced employees support and guide new local hires.

5. *Hiring Process*

Local Preference: Implement policies that give preference to local candidates when qualifications are equal. As mentioned in point 4, PCI-Sinopharmintl Consortium will publish recruitment advertisements through the village committee. Job seekers can send their resumes through committee reserved by PCI-Sinopharmintl Consortium. After screening, PCI-Sinopharmintl Consortium will issue a job offer to qualified job seekers and sign a labor contract before formal employment. The labor contract must comply with the laws and regulations of Guyana.

6. *Monitoring and Evaluation*

Tracking Progress: Monitor the number of local hires and assess how well they are integrated into the workforce. Keep track of metrics such as retention rates and job performance.

7. *Reporting*

Regular Updates: Provide regular updates on local hiring progress to stakeholders, including community leaders and project sponsors (IDB/MOH).
Impact Assessment: Assess and report on the economic and social impacts of local hiring, such as

job creation and community development.

8. Continuous Improvement

Review and Adaptation: Regularly review the Local Hire Plan to identify areas for improvement. Adjust strategies based on feedback and evolving community needs.

Best Practices: Document best practices and lessons learned to enhance future local hiring initiatives. By following these steps, PCI-Sinopharmintl Consortium can effectively implement a Local Hire Plan that not only supports local employment but also fosters positive relationships with the community and contributes to the overall success of this project. For the Labor Management Plan please see the **Appendix Six**, and Driver Safety Management Plan in **Appendix Seven.**

APPENDIX THREE – STAKEHOLDER ENGAGEMENT PLAN

The proposed project requires that stakeholders who may be affected by a project must be consulted. This SEP has been developed to describe the project's program for stakeholder engagement, public information disclosure and consultation. The SEP outlines the ways in which PCI-Sinopharmintl will communicate with stakeholders and provide a mechanism through which people can raise concerns, provide feedback, or make complaints about the project or any activities related to the project.

Stakeholders include people who may not be directly affected, and other groups who may possess information and resources that can benefit the project. This may include other government agencies, individuals and groups with particular expertise such as independent experts, and people who have an interest in a project and who may influence its outcomes. The present consultation plan considers:

1. Identification of stakeholders
2. Identification of impact or benefits, interests, positive or negative; and
3. Methodology to engage with each of the different groups
4. Details on Consultations

1. Identification of Stakeholders

Beneficiaries: The entire area occupied by PCI-Sinopharmintl Consortium's Camp is expected to positively benefit the surrounding communities, which includes:

- Private Sector
- Public sector,
- PCI-Sinopharmintl Consortium local and foreign employees Local labor, and
- Services providers (Hospitals, Schools and Water Utility).

Persons adversely affected: Most negative impacts identified are minor and moderate and more likely to be experience due to the proximity of the campsite to residences.

- Drivers;
- Residents along the ROW;
- Private sector/business operating in the ROW.

Implementing agency staff and their consultants:

- PCI-Sinopharmintl Consortium staff;
- Project Execution Unit
- Contractors on site; and
- Supervision firm.

Government policymakers and local authorities: Coordination to ensure compliance to local laws or support for the implementation of mitigation measures will be required with the following Agencies and Ministries.

- Region 8: Regional Democratic Council - Kato local Authority
- Ministry of Amerindian Affairs
- Village Council
- Ministry of Health
- Ministry of Natural Resources and Environment
- Environmental Protection Agency;
- Guyana Lands and Surveys Commission;
- Ministry of Local Government and Regional Development;
- Guyana Police Force;
- Ministry of Finance.

- Guyana Civil Aviation Authority
- Guyana Aircraft Owners Association

Academia and research organizations:

- University of Guyana.

Financing institutions:

- Inter-American Development Bank.

2. Identification of impact or benefits

The identification of adverse and positive impact is discussed in detail on Chapter 6 of the Environmental Impact Assessment Report. For the Consultation Plan the adverse and positive impacts are mentioned and a relation is stablished between impacts and stakeholders.

- Adverse Impacts:
  - Dust generation;
  - Exhaust emissions;
  - Noise Levels;
  - Solid waste generation;
  - Pollution of water bodies;
  - Disruption of services;
  - Traffic Congestion; and
  - Health and Safety.
- Positive Impacts:
  - Local employment;
  - Reliability of energy supply; and
  - Improved access to services.
- Stakeholders impacted by Adverse Impacts:
  - Residents along the ROW;
  - Businesses along the ROW; and
- Stakeholders benefitting from Positive Impacts:
  - PCI-Sinopharmintl Consortium employees;
  - Private Sector;
  - Local labour; and
  - Services providers (water utility, hospitals).

3. Methodology to engage with each of the different groups.

The recommended methods of stakeholder engagement for the proposed project are the following:

- Public hearings or meetings for adversely affected and beneficiaries.
- Workshops to PCI-Sinopharmintl Consortium staff to inform the project campsite and needed maintenance and operation requirements.
- Consultations with key informants to engage local authorities and relevant agencies involved during the construction and operation of the project, including the financial donor.
- Discussions as part of conducting surveys or census studies with beneficiaries and adversely affected persons.
- Consultations with beneficiaries and adversely affected persons using electronic media.
- Awareness campaigns and outreach to beneficiaries and adversely affected persons.

4. Consultations

PCI-Sinopharmintl Consortium will commence stakeholder consultations immediately upon approval of this ESA/ESMP and before any construction works. PCI-Sinopharmintl Consortium is expected to conduct these engagements by the first week in **June, 2025.** However, this date is tentative based on the approval of this document from the MOH and IDB. Consultations will be held in Kato, Region 8, since there are various challenges with telecommunications and connecting stakeholders online. All stakeholders will be informed at least two weeks in advance of the consultations, so that all logistical arrangements can be made in a timely manner.

Any interested stakeholders who would like to be part of the engagements, but is unable to do so at the proposed date and time, PCI-Sinopharmintl will make any necessary provisions to engage such persons.

After consultations, reports will be drafted and included as part of this ESA/ESMP.

Stakeholder Identification for Consultations

Key stakeholders critical for the consultations include the following:

a) Local communities and residents

- Kurukubaru
- Paramakatoi
- Chiung Mouth
- Kato Village
- Local businesses/shops

b) Government authorities and regulatory agencies

- Ministry of Health
- Regional Health Department, Region 8
- Kato Village Council
- Regional Democratic Council, Region 8
- Project Execution Unit – Ministry of Health
- Ministry of Amerindian Affairs
- Kato Cottage Hospital Management and Staff

c) Other interested parties

- Inter-American Development Bank
- Guyana Police Force
- Guyana Aircraft Owners Association
- Civil Aviation Authority
- Environmental Protection Agency
- Ministry of Local Government and Regional Development
- Supervisory Firm – CB Associates & Partners
- Contractors and sub-contractors

Topics for discussion

The following topics will be discussed at the consultations:

1. Overview of the project
2. Overview of the proposed camp
3. Labour Influx Plan
4. Labour Management Plan
5. Community Health and Safety Plan
6. Any other matters related to this project

Engagement Strategies

PCI-Sinopharmintl will use the following engagement strategies as part of its SEP:

- Regular Community Meetings – Conduct meetings to inform and consult communities about project progress and potential impacts.
- Public Consultation Forums – Organize forums to discuss project-related concerns and gather feedback.
- Information Disclosure – Provide timely updates via official reports, websites, and social media.
- Capacity Building and Training – Offer training programs for local stakeholders to enhance their participation.
- Feedback Mechanisms – Establish multiple channels for stakeholders to express their concerns or suggestions.

Monitoring and Evaluation

- Regular assessment of engagement effectiveness through surveys and feedback sessions.
- Stakeholder reports to track interactions and address gaps in communication.
- Performance indicators to measure transparency, responsiveness, and participation levels.

Grievance Redress Mechanism (GRM)

Objective

The Grievance Redress Mechanism (GRM) provides a structured and transparent process for addressing concerns, complaints, and disputes related to the consortium's operations. It aims to resolve issues efficiently, fairly, and in a timely manner.

Grievance Handling Process

Grievance Submission:

- Complaints can be submitted through:
- Dedicated grievance submission forms (online or offline)
- Community liaison officers or the Village Council
- Email services：katoprojectpowerchina@gmail.com
- Telephone: +592 759 8933
- Suggestion boxes placed at key locations including the village council office

Grievance Registration

- All grievances are documented in a centralized database with tracking numbers.
- Acknowledgment is sent to the complainant within five working days.

Investigation and Resolution

- Relevant teams review the grievance and assess its validity.
- Necessary actions are taken to resolve the issue within 30 working days.
- If required, further engagement with the complainant and stakeholders is conducted.

Feedback and Closure

- Resolution outcomes are communicated to the complainant.
- Follow-up actions are monitored to ensure grievances are effectively addressed.

Appeal Process

- If the complainant is unsatisfied with the resolution, an appeal can be submitted for further review.
- An independent panel may be engaged to assess complex cases.
- Final resolution decisions are documented and communicated.

Reporting and Monitoring

- Periodic reports summarizing grievances and resolutions are shared with stakeholders.
- Continuous improvement through analysis of grievance trends and feedback mechanisms.
- Compliance with national and international best practices for grievance redress.

This SEP and GRM ensures proactive community engagement and a clear, fair process for addressing concerns, reinforcing PCI-Sinopharmintl Consortium's commitment to social responsibility and sustainability.

In addition to PCI-Sinopharmintl's GRM, affected parties are also welcome to utilize the MOH's GRM. Information about the MOH's GRM can be found here: https://health.gov.gy/projects/ under subheading "**GRM Plan – HC**

APPENDIX FOUR – OCCUPATIONAL HEALTH AND SAFETY PLAN

Introduction

This section is the safety and occupational health management plan for the campsites prepared by the contractor (PCI-Sinopharmintl Consortium) in accordance with the IDB's policy framework and management requirements. This plan describes PCI-Sinopharmintl Consortium's management measures for safety and occupational health during the construction and use of the campsites. PCI-Sinopharmintl Consortium will update this plan according to changes in camp activities.

Objectives

The objectives of this plan are as follows:

- All workers and employees, are fully trained and experienced to do the tasks requested of them;
- Implement measures to eliminate hazards, and where elimination is not possible, puts in place controls to ensure that hazards and risks are minimized to acceptable levels;
- Ensure all employees and workers sign a Code of Conduct (**Please see LMP in Appendix Six).**
- Ensure the safety and health of employees during camps' construction and use.

Staff Training

PCI-Sinopharmintl Consortium will organize staff training to inform them of camp-related information, safety management policies of IDB, Ministry of Health and PCI-Sinopharmintl Consortium; code of conduct, wearing of personal protective equipment, the customs, norms and rules of people working in indigenous communities, etc.

Specialized training must be completed to perform activities as work at heights, electrical works, hazardous materials handling, lifting operations (involved in the construction of the campsites) that are considered medium or high risk evaluated. The specific training contents are shown in **Table 16.**

Table 16: Staff Training Records

Name	Age	Position/ Type of work	Training Date	Signature
General training content				
Yes	**N/A**			
		WSG and PCI-Sinopharmintl Consortium Policies regarding ESHS		
		IDB E&S Policy Framework and Construction ESMP		
		Code of conduct (Training on all aspects, including sexual harassment)		
		The employee's responsibility for performing his/her work in a safe manner, in accordance with policies and procedures, and Guyana Laws and Regulations.		
		ESMP minimum requirements for wearing personal protective equipment, including hard hats, safety glasses, and steel-toed safety shoes or boots.		
		The employee's responsibility to report all injuries and incidents, including near misses, to his/her supervisor. Inform employee where to get reporting forms and procedures for completing them.		

		Prohibition of weapons (e.g., firearms, knifes, etc.)
		The employee's responsibility for participating in mandatory safety and E&S training.
		PCI-Sinopharmintl Consortium ESMP
		Hazardous Materials (Describe various types of hazardous materials present.)
		Flammables and Combustibles
		Respirable Dust
		Emergency Response Plan and Evacuation Plan
		First Aid Training
		Fire Protection Systems & Portable Fire Extinguishers
Specialized training content for work at heights		
		In addition to common PPEs, you must wear a safety belt and fasten a safety rope, and make sure the safety belt is hung high for use.
Specialized training content for electrical works		
		Electrical work can only be performed by professional electricians, who must hold valid certificates.
		Electricians must also wear insulating gloves and insulating protective clothing when working.
Specialized training content for hazardous materials handling		
		Hazardous waste is collected and processed by designated personnel wearing protective equipment, and be treated in accordance with local disposal methods and be transported to a local centralized treatment facility for further processing.
Specialized training content for lifting operations		
		Lifting and hoisting operations are directed by a dedicated person and supervised by safety officers throughout the process.
		Lifting equipment operators must hold valid certificates.
		It is forbidden for people to enter the crane's operating radius or stand the hoisted objects.
		The safety performance and safety devices of the lifting equipment must be checked before lifting operations.
Customs, Norms, and Rules in Amerindian Communities		
		Respect for Leadership and Protocol **Toshao (village chief)** is the primary authority. Always seek **permission** from the Toshao and the Village Council before entering the community or starting any activity. **Decisions are made communally**. Major actions often require discussion with the village meeting or council. It is customary to **greet and formally introduce yourself** to the leadership when visiting. ***Community First Ethic*** Amerindian communities often operate on **collective responsibility**. Helping each other is valued over individual profit. Activities like hunting, farming, and building are done **cooperatively**,

		especially for communal projects. ***Respect for Land and Nature*** The land is considered sacred and **not individually owned**. Avoid disrespecting rivers, forests, and sacred spaces. Always ask before **using natural resources** (e.g., wood, water, and fish). **Hunting and fishing** are regulated by traditional and sometimes legal rules—always seek guidance. ***Dress and Behavior*** Modest clothing is appreciated, especially in more traditional villages. Public drunkenness, loud behavior, or **disrespectful language** is frowned upon. Take off hats when addressing elders or attending meetings (if applicable to local custom). ***Photography and Recording*** Always **ask for permission** before taking photos or videos—especially of people, rituals, or ceremonies. Some traditions or knowledge are considered **sacred or private**. ***Workplace Etiquette*** Be **patient and flexible**—time and task management may follow different rhythms from urban or Western norms. Respect **non-monetary economies**; bartering and shared services are common. **Gender roles** may influence who performs certain tasks. Always clarify expectations. ***Language and Communication*** While English is widely spoken, **Patamona, Macushi, Wapishana, and other Indigenous languages** are commonly used. Using **basic phrases or greetings** in the local language can be a strong sign of respect. ***Ceremonies and Cultural Practices*** Participation in or observation of **festivals, storytelling, or spiritual rituals** should be done respectfully, and only when invited. Some communities have **taboos** (e.g., dietary or behavioral) related to these practices.

Sexual and Gender-Based Violence

Gender-Based Violence (GBV), or violence against women in the workplace, is a major global public health problem, and even more worrying is its impact on workplace productivity. Gender-based violence refers to harmful behavior directed at individuals on the basis of gender. It has its roots in gender inequality, abuse of power, and harmful norms. GBV is a serious violation of human rights and a life-threatening health and protection issue. Sexual Exploitation and Abuse (SEA) include trafficking and prostitution. Sexual abuse refers to actual or threatened physical assault, whether by force or under conditions of unequal or coercive power. It includes sexual slavery, pornography, child abuse, and sexual assault. Violence against children includes all forms of violence against people under the age of 18, whether perpetrated by parents or other caregivers, peers, lovers, or strangers.

1. **Training plan**

New employees must be trained on the prevention of sexual and gender-based violence when they enter the site, in addition to a project-specific training on a quarterly basis. In addition, the social security employees of the project will organize such special training for the residents of the community within the construction area from time to time. Workers and sub-contractors will actively participate in training and lectures on the prevention of sexual and gender-based violence organized by the Contractor, in collaboration with relevant agencies.

PCI-Sinopharmintl Consortium is committed to combating gender-based violence, sexual exploitation and abuse, sexual harassment, and HIV/AIDS training (GBV/SEA/SH/HIV/AID) in the host communities where the project is located, educating staff about the dangers of GBV, SEA, SH, and HIV/AID so that they can identify, avoid, and report in various ways when it eventually occurs. This will also help the organization avoid all kinds of damage that may occur, thereby supporting every employee to make positive behavior changes. These trainings will be coordinated with a local NGO such as Health and Shelter and this commitment is in the social management plan.

1 Training objectives

At the end of the training, PCI-Sinopharmintl Consortium personnel and community members will be able to:

1) identify prevalent forms of gender-based violence in their communities;
2) take measures to prevent gender-based violence in the workplace;
3) Respond to GBV, SEA, SH incidents;
4) Learn how you get infected with HIV or AIDS and how to prevent it.

2 Expected Results

1) zero incidence of GBV/SEA, violence against children, or HIV;
2) the incidence of HIV infection is zero, and the transmission rate is zero;
3) increased workers' awareness of prevention and response;
4) Efficient and effective management of any case/incident in the community;
5) Establish a referral mechanism for response and reporting of GBV/SEA/HIV.

3 Training content

1) Mode of transmission of HIV During unprotected (skin-to-skin) sex (anal, vaginal, or oral).Exposure to HIV-infected blood or blood products. Intravenous drug needles are shared with HIV-positive individuals. Transmission from HIV-positive mother to child. During breastfeeding.
2) How to prevent HIV/AIDS Ask and talk about HIV ahead of time with your sexual partner. Use condoms during sex. Reduce the number of primary sexual partners. Get tested to find out how you are.
3) Who is at highest risk of HIV infection? Anyone who has not used a condom for sexual intercourse. People who have more than 1 partner and are not using a condom during sexual intercourse. A person whose sexual partner does not use a condom during sexual intercourse with another partner.
4) Chinese personnel are prohibited from having sex with local employees.
5) It is forbidden to engage in any acts of prostitution or captivity of mistresses.

Occupational Health and Safety Measures

1 Safety signs and reminders

During the camp construction phase, PCI-Sinopharmintl Consortium will post functional area signs (such as toilets, rest areas, emergency assembly points, etc.) and safety reminders (such as electrical hazards, beware of potholes, wear Personal Protective Equipment (PPE) when entering the construction site, etc.) in the camp. For the main camp, because it is close to the village, safety reminders need to be set up outside the camp (slow down signs and construction area signs are set up 50m on both sides of the camp).

After the camp is built, PCI-Sinopharmintl Consortium will hang or post necessary safety reminder signs in the concrete mixing plant, asphalt mixing plant and other production areas within the camp. For example, pay attention to safety, no smoking, danger of electric shock, beware of falling objects, no entry into mechanical working areas, wear PPEs when entering the production area, etc.

2 Security Measures

During the camp construction phase, outsiders are prohibited from entering the camp at will except PCI-Sinopharmintl Consortium employees. PCI-Sinopharmintl Consortium will assign personnel to guard the gate. If outsiders really need to enter, they need to get approval and wear PPEs before entering. No under-aged persons, that is, under the age of 18, will be allowed to enter.

At night, PCI-Sinopharmintl Consortium will employ professional security guards to guard the camp and the materials and equipment within the camp.

After the camp is built, a closed gate will be installed and a guard will be posted at the gate. PCI-Sinopharmintl Consortium employees will enter with their work permits, and outsiders will enter with visitor permits after registration and security checks, but they must obtain approval from PCI-Sinopharmintl Consortium internal staff in advance.

After the camp is built, PCI-Sinopharmintl Consortium will hire professional security personnel to take turns to guard the camp. They will patrol the camp 24 hours a day. The security personnel will also be responsible for the safety check of external visitors (whether they are carrying weapons).
PCI-Sinopharmintl Consortium will build a tall and sturdy wall and install a continuous closed protective net on the wall to prevent dangerous people from climbing over the wall and entering the camp.

PCI-Sinopharmintl Consortium will establish a CCTV monitoring system, install surveillance cameras, and set up a dedicated monitoring room.

3 Rest area and potable water

During the camp construction, PCI-Sinopharmintl Consortium will build a temporary rest area for construction workers to take a break and avoid rain. After the camp is built, PCI-Sinopharmintl Consortium will reach a water supply agreement with village council and village council will provide sanitary drinking water for the camps from the existing well.

4 Portable toilet

Before the fixed toilets are built, PCI-Sinopharmintl Consortium will purchase and install mobile toilets to meet the needs of construction workers. Male and female toilets will be set up at the same time. PCI-Sinopharmintl Consortium will arrange special personnel to clean the toilets and entrust professional companies to deal with the filth regularly.

5 Occupational Health

During the camp construction phase, PCI-Sinopharmintl Consortium will equip the site with first aid kits, which include first aid medicines such as medicines for relieving heat stroke, medicines for treating burns, hemostatic medicines, heart first aid medicines, bandages, wound dressings and other first aid medical items.

After the camp is built, PCI-Sinopharmintl Consortium will set up a medical clinic in the main camp or the sub camp to provide medical emergency and daily diagnosis and treatment to ensure the health of PCI-Sinopharmintl Consortium employees. The medical clinic will also be equipped with a first aid kit.

PCI-Sinopharmintl Consortium will recruit doctors from nearby hospitals to work in the medical clinic. At the same time, PCI-Sinopharmintl Consortium will establish close ties with the existing hospital in the surrounding area to obtain timely medical assistance, including on-site first aid, outpatient treatment, etc.

6 Other measures

In order to minimize the impact of the production area on the living area in the camp, a fence wall will be built between the production area and the living area to block dust and noise. In addition, PCI-Sinopharmintl Consortium will separate the office area and the residential area using fences, to prevent any unsafe factors from occurring

Personal Protective Equipment

This section establishes the requirements to be followed to provide adequate protection from workplace hazards through the proper selection and use of personal protective equipment (PPE). PPEs shall not be used as a substitute for adequate engineering or administrative controls, when feasible.

- The use of PPE will be mandatory. They will not prevent accidents, but will eliminate or reduce the severity of an injury.
- PCI-Sinopharmintl Consortium will provide their workers with the PPE required in the execution of any work that generates risks.
- The equipment will be new and of good quality.
- Immediate supervisor of each worker will determine the need for personal protective equipment and ensure that the worker makes use of them.
- The worker will be responsible for the care, conservation and proper use of any equipment entrusted to him.

More so, PCI-Sinopharmintl Consortium will:

- Evaluate workplace hazards with the goal of establishing PPE requirement for both routine and non-routine work situations.
- Ensure that required PPEs are being used properly and in good condition.
- Ensure employees have the required PPE training before initial assignment, and ensure they receive refresher training as needed
- Ensure that adequate supplies of appropriate PPEs are available for the employees.
- Conduct and document a semi-annual inspection of personally-assigned PPE.

All workers must:

- Participate in training to know when to use PPEs and shall use the appropriate PPEs.

- Properly wear all prescribed PPEs.
- Inspect personally assigned PPEs for serviceability and defects prior to use.
- Clean, maintain and store PPEs in a manner that will ensure its serviceability.
- Not intentionally damage PPEs.
- Report or correct situations where current PPEs use is not adequate to protect against the hazard(s) encountered.

APPENDIX FIVE – EMERGENCY RESPONSE PLAN

The Emergency Response Plan (ERP) outlines procedures and protocols to be followed in the event of an emergency situation. The purpose of this plan is to ensure the safety and well-being of employees, visitors, and assets, as well as to minimize disruption to the campsites. All employees are required to familiarize themselves with this plan and comply with its procedures.

Threat/Risk Assessment

To create an effective ERP, PCI-Sinopharmintl Consortium has conducted a comprehensive threat assessment to identify the types of events that may affect organization and analyze their likelihood and potential impact. Because specific threats vary by location, by work activity and the personnel involved, mitigation strategies and protective actions will vary depending on the scenario.
The potential threats/risks within the construction and use of the campsites are:

1. Fire or explosion;
2. Damage/destruction from inclement weather (Flood/Heavy Rain);
3. Release of hazardous materials such as spills;
4. Workplace violence, which could threaten human health or the environment;
5. Civil disturbances such as protests, demonstrations, riots, strikes, etc.;
6. Safety accidents such as falling from heights, cuts, electric shocks, etc.

Emergency Response Contact Information

The emergency response information is shown in **Table 15** below.

Table 15: Emergency Contact Numbers

Emergency Contact Numbers	
Service	**Contact number**
Chinese Ministry of Foreign Affairs Global Consular Protection Emergency Hotline	+861065612308
Chinese Embassy in Guyana Consular protection	+592 624-6702
Guyana Police Service	911
Guyana Fire Service	+592 226-2411 / +592 225-0650
Air Services Limited – Medevac Services	+592 222-1234 / +592 222-2536
Kato Cottage Hospital	+592-225-4505
Toshao of Kato Village	+592 503-5359
Deputy Toshao of Kato Village	+592 503-5359
Kato Police Station	+592 620-6713
Project Execution Unit – Ministry of Health	+592 225-007 / +592 225-0010

Emergency Management Team

In the event of an emergency, it is crucial to ensure that the entire team remains calm and does not panic. A well-functioning emergency management team can significantly enhance the efficient and effective response of the entire executing team. This management team will be responsible for activating the emergency response plan, answering questions, and ordering an evacuation if needed. The team will be present, reliable, and will react quickly in an emergency. **Table 16** shows the jobs and responsibilities of the Emergency Management Team. **All personnel on the management team is expected to be trained in providing basic first-aid care, if required.**

Table 16: Emergency Management Team

Roles and Responsibilities		
Job	**Assigned to**	**Job description**
Emergency Coordinator	HSE Manager	Overall coordination of the response efforts.
Safety Officer	HSE Manager	Monitoring and ensuring safety protocols are followed.
Communication Officer	Social Commissioner	Managing communication with internal and external stakeholders.
Incident Commander	Project Manager	Directing on-site response activities; responsible for all emergencies, including planning and preparation. The incident commander is in charge of emergency response plan activation and is the one all critical decisions should go through.
Evacuation coordinator	Site Supervisor	Overseeing evacuation procedures.
Communication commander	Site Engineer	This person will notify employees, call emergency services and gather reports. Be trained in first aid
Scene supervisor	Site Engineer	This person controls access to the emergency scene and keeps people away from unsafe areas.

Emergency Notification

In the event of an emergency, employees should immediately report the incident according to the chain of command in the figure below. Please see report template in **Annex One. Figure 15** shows a simplistic chain of command in the case of an immediate emergency. However, at the end of the incident all emergency representatives should be notified and further contribute to assessing the incident to prevent a reoccurrence.

Figure 15: Chain of Command for Emergency Response

Emergency Procedures

Type of emergency to be reported by site personnel are:

1. Medical Emergency;

Step 1: Ensure Safety

Do not put yourself or others in danger.

Stop all nearby work and secure the area.

If the situation is life-threatening (e.g., unconsciousness, heavy bleeding), call emergency services immediately.

Step 2: Contact Site First Aid Personnel

- Notify the Site Safety Officer and designated First Aider immediately.

- First Aider will assess the condition and begin basic first aid.

Step 3: Call Emergency Medical Services (EMS)

- Use the emergency number for local medevac services in Guyana:

Provide the following information:
Type of emergency
Location (site address and specific area)
Condition of the injured person
Contact person on-site

Step 4: Administer First Aid

While waiting for EMS:
Keep the injured person calm and comfortable.
Do not move them unless there is immediate danger (e.g., fire, collapse).
Apply CPR or bleeding control if trained.

Step 5: Escort to Medical Facility

- Ensure a team member is assigned to accompany the injured worker to the hospital (if applicable).
- Bring medical records or relevant site information.

Step 6: Incident Documentation

- The Site Safety Officer must complete a full Incident Report within 24 hours.

The report shall include, at minimum, the following information:
Time, date, and location
Description of the incident
Witness statements
Action taken
Recommendations to prevent recurrence

Step 7: Notification

- Notify project management and, if required, regulatory authorities.

Inform next of kin (handled by HR or designated officer).

Step 8: Post-Incident Review

- Conduct a safety meeting to review the incident.

Update procedures and training as needed.
Fire emergency:
Severe weather conditions (Flood);
Hazardous material leaks (such as chemical/fuel spills).

2. Natural Disasters

General Actions in the Presence of Hurricanes and Floods

In the case of occurrence of threats due to extreme weather conditions, the following actions should be considered:

Preparation

• Train operational personnel to act in the event of storm and flooding emergencies, so that personnel are prepared for these events.

• Conduct period maintenance cleaning of all drainage canals to remove trash, sediment, and other debris to promote adequate drainage of stormwater during these events.

• Inspect emergency equipment and make sure it is ready for use. Ensure emergency equipment includes drinking water and canned food.

• Secure with ropes or chains all equipment that cannot be secured inside a building.

• Place the vehicles in a manner so they are protected against hurricane winds.

• Call the relevant authorities for the Project or Operations, the Police and the security company, if any, and indicate that only the minimum emergency personnel will be left on site.

• Close the main gate if able to.

• The coordinator will determine, according to the prevailing or progressive conditions, if emergency stop procedures should be executed.

After the Emergency

• Equipment will not be energized/turned on until it has been checked by expert electricians/mechanics.

• In case of spills or fires, implement response procedures in accordance with the procedures related to these events in the contingency plan.

• Take a tour and assess the damages incurred.

• Proceed to repair minor damages and those necessary to provide immediate service.

• Proceed to clean debris and artefacts that obstruct the operations of the same.

• Prepare a written report at the end of the emergency. Said report shall contain the results of estimation of damages to the property of the company, affected persons, damages to private properties, and to the environment.

• Response plans should be updated based on the emergency to remain effective.

When flooding events are exacerbated due to drainage blockage (caused by construction activities), PCI-Sinopharmintl Consortium will divert traffic to avoid people and vehicles from crossing the flooded area, while the drains get unblocked/the issue is resolved. Follow the detail requirement of Drainage Management Plan in **Appendix Ten.**

3. <u>Fire and/or Explosions</u>

A fire can cause serious damage to equipment or personnel, and should be taken care of as quickly as possible. The following is the PCI-Sinopharmintl Consortium's Contingency Plan in case of a fire.

Before a Fire

• Provide training to all personnel through courses on fire practices and simulations of accidents, use of fire extinguishers, etc.

• Have infrastructure and equipment for fire protection, and extinguishers that work in different environments depending on the type of project (for example, Class A extinguishers for ordinary combustibles such as wood and paper, Class B extinguishers for use on flammable liquids like grease, gasoline and oil, etc.).

• Develop rigorous preventive maintenance programs for all types of equipment, inspect and recharge fire extinguishers, etc.

• Identification and signage of safe areas and establish evacuation routes in all facilities or work fronts.

• Keep extinguishers in good condition.

• Provide first aid kit, battery-operated flashlights, extra batteries, etc. on site.

During a Fire

- Evacuate and or stop work in the area and / or facilities.
- Communicate with the local Fire Brigade, National Police and other entities depending on the severity of the emergency.
- Protect mouth and nose with damp cloths.
- Keep calm and avoid running.
- Assist affected people immediately, if any.
- If appropriate, try to put out the fire with the use of extinguishers and other existing means. Ensure extinguishers are periodically inspected to ensure they are in working condition.
- If any equipment is involved in the fire or explosion, the operator must manually disconnect the electrical power that feeds the equipment, as long as it can be done safely or without risk to human life.

In the event that the fire cannot be fought directly with the extinguishers, or there is danger to the personnel, the actions to be taken are:

- Notify firefighters immediately for help.
- Evacuate the place to the meeting point previously agreed in the training plan and risk drills.
- Once the firefighters have determined that the emergency has ended, the emergency coordinator of the project owner should be informed.
- Proceed along with the maintenance crew to an inventory of damages and then make a detailed report on the matter.

After a Fire

- Clean the affected area.
- Remove all debris.
- Repair and / or demolish affected facilities in case of major damages.
- When the fire has been extinguished, proceed with the maintenance crew to prepare an inventory of damages and then make a detailed report on the matter.

Adequate Staff Training

Practices or simulations should be carried out every one year (can include coordination with the local Fire Department), and should include response procedures for personnel all personnel.

Use and Disposal of Fire Extinguishers

- Fire extinguishers must be located in appropriate places and easily accessible.
- Every extinguisher must have a plaque with the information about the kind of fire for which it is suitable and expiration date. Also, they must have operation and maintenance instructions.
- Each extinguisher must be inspected every two months, tested and maintained in accordance with the manufacturer's recommendations; similarly, they must carry a label with test dates and expiration date.
- If an extinguisher is used, it will be refilled immediately; or if necessary, it will be replaced immediately.

4. Spill Contingency Procedures

The purpose of spill contingency response measures is to provide a course of action, which will be implemented to allow a prompt and orderly response to spills that may occur during construction. A spill of any liquid, solid or gaseous substance, which could impair the usefulness of the land, water or air where it is released will be responded to by the procedures outlined in this contingency plan. The main objectives of the Spill Contingency Response are:

- To reduce the risk of harmful exposure to individuals and the surrounding environment;
- To clearly outline the action to take if a spill will occur; and,
- To ensure that project staff is aware of the correct response required.

Preparation:

Implementation of sumps and oil traps to prevent leaks and spills from contaminated surface water Storage of collected material in drums before being removed by an authorized waste oil removal company. Preparation and availability of spill kits.

1 Equipment and Materials Needed for Spill Response

PCI-Sinopharmintl Consortium will have a spill kit to deal with spill incidents. The spill kit will be stored at PCI-Sinopharmintl Consortium site office and/or strategic places to be used in the event of a Spill. The kit will comprise the following materials:

- Absorbent material, such as sand, sawdust, absorbent cloths (depending on spilled material), absorbent foam
- Skimmers
- Fire extinguishers
- Gloves, safety goggles and respirators and boots
- Gallon sealable containers
- Caution Tape
- Bags containing saw dust
- Bags containing white sand
- Plastic Spade
- Heavy Duty Garbage Bags
- Empty Five Gallon
- Containers with lids to store spilled materials.
- Photographic camera to document the incident

In the event of a spill, formal communication including completion of an incident investigation report will be sent to all relevant personnel which includes the IDB and may include local authorities. The time frame for reporting spill incidents is dependent on the nature and severity of the spill in line with general good practice guidelines for incident classification. The extent of contact with local authorities will also depend on the classification of the spill. Please see Oil Spill Report template in **Annex One.**

5. Emergency response for falls from heights and truck

Before

Training for personnel should include industrial safety to prevent unsafe acts and ensure the use of appropriate protective gear such as helmets, boots, safety glasses, and restraint harness. Additionally, personnel training should include first aid implementation to assist injured coworkers or themselves until medical or paramedical personnel arrive at the accident site or they are transferred to a hospital for professional care.

Provision of personal protection equipment to all workers, as necessary.

During

In case of an accident in the facilities, the staff will act as follows:

- If it is a minor accident, apply first aid to the injured person and transfer them immediately to the nearest clinic or hospital so that they can be seen by a doctor, in order to rule out possible aftereffects.
- If it is a serious fall from heights, shelter the injured person and request an ambulance for immediate transfer to a hospital.
- If a person is not breathing, provide rescue breathing (mouth-to-mouth breathing or mouth-to-nose) and request an ambulance for urgent medical attention.
- In case of burn, do not apply home remedies to the injured only water at the time and request an ambulance for its transfer to the clinic or hospital soon.
- For hemorrhage from a puncture wound, hold a gauze in place to avoid blood loss. If located in the extremities, make a tourniquet to cut blood loss, loosening the tourniquet every 10 minutes to avoid gangrene and to move the injured person to a nearby assistance center.
- If trapped with weight on the chest, lever the heavy element and remove it so that the victim does not suffocate, until the arrival of the ambulance.
- If the victim has suffered an electric shock, ensure they are breathing, provide rescue breathing (mouth-to-mouth breathing or mouth-to-nose), and simultaneously request medical assistance or transfer to a clinic or hospital.

Immediate attention to an injured person through knowledge of First Aid can save a life. Always seek the appropriate medical attention by a professional.

After

- Analyze the causes of the accident and the actions taken to assist.
- Prepare the preliminary and final report of the industrial accident.

6. Equipment or Infrastructure Failure Procedures

Anyone who detects a fault or failure will immediately notify the Supervisor or Chief of Operations identifying themselves and indicating the place and type of emergency. Try as much as possible to isolate the area or prevent vehicles or people from approaching. After overcoming the problem, analyze the root cause of the emergency/fault or failure.

APPENDIX SIX – LABOUR MANAGEMENT PROCEDURE

The Labor Management Plan will be in accordance with the following labor legislations:

The Labor Act, Chapter 98:01: (No. 2 of 1942)

Provides for the establishment of the Department of Labor, for the regulation of the relationship between employers and employees, the appointment of the Chief Labor Officer and staff, the statutory responsibility of the Chief Labor Officer and the Permanent Secretary. The Act also provides for conciliation in industrial disputes, defines the powers of the Minister to intervene in trade disputes, and establishes advisory committees, procedures for regulating wages and hours of work, rights and obligations of employees, and the status and enforceability of collective agreements.

Termination of Employment and Severance Pay Act, Chapter 99:08 (No. 19 of 1997)

Provides the conditions governing termination of employment, and the grant of redundancy or severance payment to employees for reasons connected with redundancy. The Act defines unfair dismissals and the termination process, including termination on the grounds of redundancy, and the formula for severance allowance.

Prevention of Discrimination Act, Chapter 99:09 (No. 26 of 1997)

Provides for the elimination of discrimination in employment, training, recruitment, and membership of professional bodies. The Act also provides for the promotion of equal remuneration for work of equal value. It further prohibits discrimination, defines unlawful discrimination, and protects against discrimination in employment, and protection against discrimination in other areas.

Occupational Safety and Health Act, Chapter 99:10 (No. 32 of 1977)

Provides for the registration and regulation of industrial establishments, and for occupational safety and health of persons at work. The Act also provides for the establishment and functions of the National Advisory Council, and Authority on Occupational Safety and Health (OSH), and defines the power and authority of an inspector of labor, medical inspector, OSH commissioner and their appointments. The Act further provides for the participation of non-governmental agencies through safety and health representatives and joint workplace and health committees with defined functions and powers. The duties of the employer, supervisors, workers, occupiers, owners, and directors are set out in the Act. Concerning hazardous chemicals, and physical and biological agents, the Act requires their identification and hazardous nature with appropriate inventories and regulates their use, storage, instruction and training. Notification of accidents and occupational diseases, inquest in case of death by accident or occupational disease are further requirements of this Act.

National Insurance and Social Security, Chapter 36:01 Act No. 15 of 1969

This Act provides for a system of national insurance and social security for old age, invalidity, survivors, sickness, maternity, and funeral benefits. The Act also complements compensation under the Workmen's Compensation law for injury or accidental death arising out of or in the course of employment or disease due to the nature of employment. The Act further establishes a National Insurance Fund.

Other Laws regarding the regulation of hours of work, wages and other conditions of work, duties and obligations relating to employers and employees are covered by the following legislation:

- ***Wages Council Act, Chapter 98:04 (No. 51 of 1956) for the establishment of wages councils***
- ***Employment Exchange Act, Chapter 98:05 (No. 21 of 1944) for the establishment of employment exchanges***

- ***The Recruitment of Workers Act, Chapter 98:06 (No. 9 of 1943) to regulate the recruiting of workers***
- ***Employment of young persons and children Act, Chapter 99:01 (No. 14 of 1933/No. 9 of 1999)***
- ***Holidays with Pay Act, Chapter 99:02, (No. 6 of 1995) to provide for the grant and regulation of annual holidays with pay for all categories of workers***
- ***Labor (Conditions of Employment of certain workers) Act, Chapter 99:03 (No. 18 of 1978) to regulate the conditions of employment of certain workers***
- ***Accidental Deaths and Workmen's Injuries (Compensation) Act, Chapter 99:05 (No. 21 of 1916) to make certain provision for accidental death and personal injury. This is in addition to any benefits obtained under the National Insurance and Social Security Act or any entitlements from any other service.***
- ***Household Service Workers (Hours of Work) Act (No. 17 of 1980) to regulate the working hours of household service workers.***

PCI-Sinopharmintl Consortium's Labor Recruitment Plan shall be made according to the construction organization plan. Qualified workers shall be recruited following the relevant regulations of Guyana. **Child labor/minor and forced labor are strictly prohibited**. Equal employment shall be respected. Project personnel shall comply with the code of conduct for the contractor, attend the induction meeting, HSE meeting, toolbox/pre-work meeting held for the Project, and participate in the HSE training plan organized for the Project.

Project personnel shall participate in HSE drills organized for the project. The labor training plan of the Project is summarized in **Table 17.**

Table 17: Labor Training Plan

Project Phase	Communication Mechanism	Audience	Frequency of Communication	Objectives	Responsible for Execution
Mobilization	Toolbox Talks	Employees of the Contractor	Inception Daily	• Outline any social/cultural sensitivity. • Outline Grievance and reporting procedures. • OSH Awareness	• Contractor • Community Liaison Officer
Mobilization	Sensitization Session/ Training	Employees of the Contractor	Inception	• Introduction to Occupational Safety & Health. • Occupational Safety & Health Legislation • Workplace Hazards • Safety and Health in The Construction Sector • Workplace Inspections • Accident and Accident Investigations • Awareness and Education on Social Issues Plan • Hazardous Material Communication • Communicable and Non-	• Contractor • Community Liaison Officer • External Facilitators • Gender Affairs Bureau

Project Phase	Communication Mechanism	Audience	Frequency of Communication	Objectives	Responsible for Execution
				Communicable Disease • Grievance and reporting procedures. • Outline of Sexual and Gender Based Violence (SGBV)	
Construction	Toolbox Talks	Employees of the Contractor	Inception Daily	• Outline any social/cultural sensitivity • Outline Grievance and reporting procedures.	• Contractor
Construction	Toolbox Talks Sensitization Session/ Training	Employees of the Contractor	1 Day Training As-needed Throughout the 36 months of the project	• Introduction to Occupational Safety & Health. • Occupational Safety & Health Legislation • Workplace Hazards • Safety and Health in The Construction Sector • Workplace Inspections • Accident and Accident Investigations • Awareness and Education on	• Contractor • Community Liaison Officer • External Facilitators • Gender Affairs Bureau

Project Phase	Communication Mechanism	Audience	Frequency of Communication	Objectives	Responsible for Execution
				Social Issues Plan • Communicable and Non-Communicable Disease • Grievance and reporting procedures. • Outline of Sexual and Gender Based Violence (SGBV)	
Post Construction	Toolbox Talks	Employees of the Contractor	Inception Daily	• Outline any social/cultural sensitivity • Outline Grievance and reporting procedures. • OSH Awareness	• Contractor
Post Construction	Sensitization Session/ Training	Employees of the Contractor	Monthly meeting	• Outline any social/cultural sensitivity • Outline Grievance and reporting procedures. • Occupational Health and Safety • Communicable and Non-Communicable Diseases	• Contractor

Workers' Code of Conduct

PCI-Sinopharmintl Consortium has prepared a Workers' Code of Conduct, where the purpose is to regulate the behavior of all employees and prevent safety risks caused by improper personal behavior of employees. The code of conduct applies not only to the construction and use of the camp, but also to all stages of the entire project.

ESHS CODE OF CONDUCT REQUIREMENTS FOR PCI-Sinopharmintl Consortium INDIVIDUAL EMPLOYEE

The Code of Conduct shall define rules of behavior for all workers related to risks associated with but not limited to: prevention and management measures for environmental, labour, and social risks of the Project, including health and safety risks, third party contractor actions, labour influx, illicit behavior and crime, sexual and gender-based violence, discrimination, and sexual abuse and exploitation of children and other individuals or vulnerable groups.

Executive Summary

Courtesy and Respect: PCI-Sinopharmintl Consortium and their Employees should conduct themselves in a manner that is lawful, courteous, businesslike, and respectful of all staff, guests, or visitors.

Language and Behavior: PCI-Sinopharmintl Consortium and their Employees cannot engage in behavior that is rude, threatening, or offensive. Use of profane or insulting language is prohibited. Harassment of any type, including sexual harassment is strictly prohibited. Abusive, derogatory, obscene or improper language, gestures, remarks, whistling, cat calls or other disrespectful behavior cannot be tolerated. Rough housing, fighting, fisticuffs, physical threats, destruction of property, vandalism, littering, or physical abuse of anyone on campus are not permitted under any circumstance.

No Weapons, Alcohol, or Drugs: The use, possession, distribution, or sale of any weapon, alcohol, illegal drug, or controlled dangerous substance by any contractor or contractor's employee is prohibited. Offenders will be removed from site and/or reported to the local Police Department.

Smoking: PCI-Sinopharmintl Consortium and their employees are not permitted to smoke in or near any of the campus buildings.

Appearance: PCI-Sinopharmintl Consortium and their employees are required to wear appropriate work wear, hard hats and safety footwear, as the case may be, while on site. Articles of clothing must be neat and tidy in appearance, and cannot display offensive or inappropriate language, symbols or graphics.

Reporting: PCI-Sinopharmintl Consortuim and their employees is required to report any matter involving a violation of these rules of conduct to the Team Leader. Any matter involving health or safety, including any altercations, should be reported to the Team Leader as well.

Child/ Children: No "child" / "children" means any person(s) under the age of 18 years should not be employed by PCI-Sinopharmintl Consortium. Child Labour is strictly prohibited.

PCI-Sinopharmintl Consortium and their Employees shall ensure the protection of children (including prohibitions against sexual activity or abuse, or otherwise unacceptable behavior towards children, limiting interactions with children, and ensuring their safety in project areas)

Health and Safety Requirements: PCI-Sinopharmintl Consortium and their Employees shall ensure

Compliance with applicable health and safety requirements to protect the local community (including vulnerable and disadvantaged groups), the Employer's Personnel, and the Contractor's Personnel (including wearing prescribed personal protective equipment, preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment)

Non-Discrimination: PCI-Sinopharmintl Consortium and their Employees shall ensure the Non-Discrimination in dealing with the local community (including vulnerable and disadvantaged groups), the Contractor's Personnel (for example on the basis of family status, ethnicity, race, gender, religion, language, marital status, age, disability (physical and mental), sexual orientation, gender identity, political conviction or social, civic, or health status)

Sexual Harassment: PCI-Sinopharmintl Consortium and their Employees shall ensure that Sexual harassment is prohibited (for example to prohibit use of language or behavior, towards women and/or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate)

Sexual and/or Gender-Based Violence: PCI-Sinopharmintl Consortium and their Employees shall ensure that Violence, including sexual and/or gender-based violence is prohibited (for example acts that inflict physical, mental, or sexual harm or suffering, threats of such acts, coercion, and deprivation of liberty)

Exploitation including Sexual Exploitation and Abuse: PCI-Sinopharmintl Consortium and their Employees shall ensure that Exploitation including sexual exploitation and abuse (for example the prohibition of the exchange of money, employment, goods, or services for sex, including sexual favors or other forms of humiliating, degrading behavior, exploitative behavior, or abuse of power)

Welfare facilities: PCI-Sinopharmintl Consortium and their Employees shall ensure that adequate welfare facilities are provided (for example, to ensure workers use specified sanitary facilities provided by their employer and not open areas)

Non-retaliation: PCI-Sinopharmintl Consortium and their Employees shall ensure that non-retaliation against workers who report violations of the Code, if that report is made in good faith.

Compliance with Laws and Regulations

Legal Compliance: As an employee of the Supervising Engineer -Sheladia Associates Inc (SAI), you are required to comply with all applicable laws, regulations, and standards of Guyana pertaining to construction, labour practices, environmental protection, and occupational health and safety. This includes but is not limited to:

Construction Laws: Understanding and adhering to the Building Codes and any other relevant legislation governing construction activities in Guyana.

Labour Practices: Ensuring compliance with Labour laws regarding wages, working hours, employment conditions, and worker rights as specified under the relevant Labour Legislations.

Environmental Regulations: Adhering to the Environmental Protection Agency (EPA) Act and regulations to minimize the project's impact on the environment and promote sustainable practices.

Health and Safety: Implementing and enforcing safety measures to protect workers, stakeholders, and the public from hazards associated with construction activities in keeping with the Occupational Safety

and Health Act Chapter 99:06.

Integrity and Ethical Conduct
Honesty and Transparency: Conduct all professional activities with honesty, integrity, and transparency. Provide accurate and truthful information to the Employer, Contractor, Sub- Contractor and Stakeholders at all times. When reporting project progress or issues, present information objectively without omitting relevant details or providing misleading information.

Conflicts of Interest: Avoid conflicts of interest that may compromise your professional judgment or impartiality. Disclose any actual or potential conflicts of interest promptly to the appropriate stakeholders and seek guidance on how to manage or mitigate them.

Anti-corruption: Refrain from offering, soliciting, or accepting bribes, kickbacks, or any other form of improper advantage. Uphold a zero-tolerance policy towards corruption and report any suspected or observed instances of corruption to the relevant authorities. Decline any offers of gifts or favors from contractors or suppliers that could influence your decision-making process or create a conflict of interest.

Professionalism
Competence: Maintain a high level of competence and proficiency in your field of supervision. Stay informed about industry best practices, technological advancements, and relevant regulatory changes through continuous learning and professional development activities.
Attend seminars, workshops, and training sessions on construction management, quality assurance, and project supervision to enhance your skills and knowledge base.

Respect and Collaboration: Treat all individuals with respect, fairness, and dignity, regardless of their role or position within the project. Foster a collaborative and inclusive work environment that values diversity and promotes teamwork. Listen actively to the perspectives and concerns of all project stakeholders, including contractor, sub-contractor, workers, and community members, to facilitate constructive dialogue and problem-solving.

Professional Image: Uphold a professional image and demeanor in all interactions related to the project. Dress appropriately for the work environment and maintain a courteous and respectful attitude in communications and meetings. Communicate clearly and professionally in written correspondences, emails, and reports to convey information effectively and maintain professional standards.

The Contractor's personnel shall:

(1) General Conduct:

(a) Comply with this Code of Conduct.

(b) Carry out your duties competently and diligently in a professional manner at all times.

(c) Treat all individuals in the workplace and in the local community with respect, regardless of their position, race, gender, age, religion, language, sexual orientation, political affiliation, disability, or other protected characteristics.

(d) Be honest and truthful in all your dealings.

(e) Keep noise levels to a minimum, especially during early morning and late evening hours, to avoid disturbing the local community.

(f) Remove yourself from any situation that you believe presents an imminent danger to your life or health.

(g) Adhere to all applicable national laws and regulations and community rules. If in doubt, seek guidance from a Supervisor.

(2) Personal Security:

(a) Take precautions to ensure your personal safety, such as being aware of your surroundings and avoiding isolated areas.

(b) Follow emergency procedures in case of accidents or threats.

(c) Adhere to all security protocols, including wearing identification badges and following access restrictions.

(3) Occupational Health and Safety:

(a) Ensure that workplace machinery, equipment and tasks under your control are safe and without risk to health.

(b) Wear the required personal protective equipment (PPE).

(c) Use appropriate measures relating to chemical, physical and biological substances and agents.

(d) Adhere to a zero-alcohol policy during work activities and refrain from the use of narcotics or other substances that can impair your faculties.

(e) It is strictly forbidden to carry weapons, consume alcoholic beverages or drugs, as well as carry pornographic images or objects in all areas of the job site and the community.

(d) Follow applicable emergency operating procedures.

(4) Workplace and Community Behaviour:

(a) Commit to non-violence and refrain from any behavior that could escalate tensions or provoke conflict.

(b) Treat all women, children, and men in the workplace and local community with respect.

(c) Avoid the use of language toward women, children or men that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.

(d) Do not engage in any form of harassment [This includes unwelcome sexual advances, requests for sexual favours, and other verbal or physical conduct of a sexual or non-sexual nature].

(e) Ensure the safety and protection of children from sexual activity, abuse, or any other unacceptable behaviour.

(f) Not engage in exploitation [This includes any actual or attempted abuse of position, differential power, or trust for sexual or non-sexual purposes, including, but not limited to, profiting monetarily, socially, or politically from the sexual or non-sexual exploitation of another].

(g) Not engage in any form of abuse, including sexual abuse and exploitation [This involves the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal coercive conditions, as well as sexual favours or other forms of humiliating].

(h) Unless there is the full consent' by all parties involved, do not engage in sexual interactions with members of the local community [These include relationships involving the withholding or promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex. Such sexual activity is considered "non-consensual" within the scope of this Code].

(e) Not engage in any form of sexual activity with individuals under the age of 18, including grooming, or contact through digital media. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.

(5) Reporting of Violations and Incidents:

(a) Report violations of this Code in the workplace and in the local community through the following ways:

i. Contact the Supervisor regarding health, safety and security situations.
ii. Contact security personnel for reporting personal security incidents.
iii. Contact Community Liaison Officer regarding all type of concerns, especially reporting on gender and sexual-related incidents.
iv. Through the Grievance Mechanism for reporting of all types of complaints.

(b) Do not retaliate against any person who reports violations of this Code of Conduct.

The person's identity will be kept confidential unless reporting of allegations is mandated by the country’s law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. Any violation of this Code of Conduct by Workers may result in serious consequences, up to and including termination and possible referral to legal authorities.

(6) Training:

(a) Complete relevant training courses that will be provided related to the environmental and social aspects of the project, including Health, Safety and Personal Security, Sexual Exploitation and Abuse, Sexual Harassment, and use of the Grievance Mechanism.

Confidentiality

Confidential Information: Safeguard confidential and proprietary information obtained during the course of your supervision duties. Use this information solely for authorized purposes related to the project and refrain from disclosing it to unauthorized individuals or third parties. Protect sensitive project data, such as financial records, design specifications, and strategic plans, from unauthorized access or disclosure by implementing secure document management practices.

Compliance and Accountability

Code Adherence: Adhere to this Code of Conduct and uphold its principles, standards, and guidelines in all aspects of your supervision consultancy services. Demonstrate personal accountability for your actions, decisions, and conduct throughout the project lifecycle. Review and acknowledge your understanding of the Code of Conduct annually or upon contract renewal to reaffirm your commitment

to ethical behavior, professionalism, and compliance with legal and regulatory requirements.

Documentation and Audit: Maintain comprehensive documentation and records to demonstrate compliance with contractual obligations, regulatory requirements, and industry standards. Prepare documentation packages containing project plans, specifications, permits, inspection reports, and correspondence with stakeholders for audit purposes to validate compliance with quality, safety, and environmental standards.

Enforcement

Disciplinary Action: Violations of this Code of Conduct may result in disciplinary actions, up to and including termination of contract or employment, depending on the severity and impact of the misconduct. The decision to impose disciplinary measures will be made in accordance with contractual agreements, legal obligations, and organizational policies and the Termination of Employment and Severance Pay Act. Example: Consequences for breaches of ethical conduct or non-compliance with legal requirements may include verbal warnings, written reprimands, suspension from project duties, or termination of consultancy services, as deemed appropriate by the employer.

How would PCI-Sinopharmintl Consortium deal with the breaches?

Breaches on Construction sites are some of Guyana's most common Occupational Safety and Health violations. PCI-Sinopharmintl Consortium would deal with these breaches by ensuring enforcement by our dedicated team of Safety professionals providing all employees must wear hard hats if there is a potential risk of falling debris or other construction materials. Other safety measures include erecting barricades, signs, cones, delineating devices, other channeling devices, according to MUTCD Standards, flashing beacons, and flood lights.

PCI-Sinopharmintl Consortium will establish and implement a fall prevention program to protect workers following these and other Occupational Safety and Health Act Chapter 99:06 and OSHA Standards.

PCI-Sinopharmintl Consortium would train all employees to recognize the hazards associated with the type of scaffold used. Training records would also be readily available for inspection.

PCI-Sinopharmintl Consortuim has the power to ensure the employees under their supervision adhere to the Occupational Safety and Health Act, Chapter 99:06 under the employer's duties and ensure compliance and Safety on the job site to protect your workers, which is our bottom line.
According to the Contract, PCI-Sinopharmintl Consortuim would take disciplinary action against staff in keeping with the Termination of Employment and Severance Pay Act. A stop work order would be issued where any infringement occurs on the site by the Engineer.

The Contractor shall be required to implement the agreed Code of Conduct (COC).

The Company will implement the code of conduct at PCI-Sinopharmintl Consortium under the proposed project EBRIP according to the Company's principles, standards, and the moral and ethical expectations of employees and third parties of PCI-Sinopharmintl Consortium organization.

Acknowledgment

All staff members are required to read, understand, sign and adhere to this Code of Conduct. By signing this document, you agree to adhere to the Worker Code of Conduct and understand that any violation of these guidelines may result in disciplinary action, including termination of employment or legal action, including arrest.

I agree that while working on the project I will:

1. Consent to Police background check.
2. Attend and actively partake in training courses related to ESHS, OHS, and GBV as requested by my employer.
3. Will wear my personal protective equipment (PPE) at all times when at the work site or engaged in project related activities.
4. Take all practical steps to implement the contractor's environmental and social management plan (C-ESMP).
5. Implement the OHS Management Plan.
6. Adhere to a zero-alcohol policy during work activities, and refrain from the use of narcotics or other substances which can impair faculties at all times.
7. Treat women, children (persons under the age of 18), and men with respect regardless of race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status.
8. Not use language or behavior towards women, children or men that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
9. Not sexually exploit or abuse project beneficiaries and members of the surrounding communities.
10. Not engage in sexual harassment of work personnel and staff —for instance, making unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature is prohibited. E.g. looking somebody up and down; kissing, howling or smacking sounds; hanging around somebody; whistling and catcalls; in some instances, giving personal gifts.
11. Not engage in sexual favors —for instance, making promises of favorable treatment (e.g. promotion), threats of unfavorable treatment (e.g. loss of job) or payments in kind or in cash, dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior.
12. Unless there is the full consent[2] by all parties involved, I will not have sexual interactions with members of the surrounding communities. This includes relationships involving the withholding or promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex (including prostitution). Such sexual activity is considered "non-consensual" within the scope of this Code.
13. Consider reporting through the GRM or to my manager any suspected or actual GBV by a fellow worker, whether employed by my company or not, or any breaches of this Code of Conduct.

Employee/Workers Name _____

Signature _____

Date _____

[2] **Consent** is defined as the informed choice underlying an individual's free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained using threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even if national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense.

APPENDIX SEVEN – DRIVER SAFETY MANAGEMENT PLAN

1. Vehicle Maintenance and Inspection

Regular Maintenance Schedule: Vehicles managed by PCI-Sinopharmintl Consortium should have routine vehicle maintenance schedule for oil changes, tire rotations and brake inspections. Vehicles should have routine maintenance every 5000 miles or according to the vehicle specifications.
Daily Inspections: Drivers should inspect the vehicle before using it. This would include ensure there is oil, water, durable tires, working lights and breaks.
Documentation: Keep records of routine vehicle maintenance should be kept. The information that should be recorded are: Date of maintenance, Company maintained with, what was maintained on the vehicle.

2. Driver Training and Education

- *Initial Training:* Provide comprehensive training for new drivers, covering vehicle operation, road safety rules, and company policies.
- *Ongoing Education:* Offer regular refresher courses and updates on new safety regulations and driving techniques.
- *Defensive Driving Courses:* Encourage or require participation in defensive driving courses to improve hazard awareness and reaction skills.

3. Safety Policies and Procedures

The safety procedures that driver should follow are:

- *Seatbelt Use:* Drivers must use their seatbelts and encourage all occupants to do the same.
- *Speed Limits:* Adhere to speed limits on the campsite and on the public roadways.
- *Distracted Driving:* Drivers should not use their mobile phone use while driving. Hands-free devices should be encouraged.
- *Substance Abuse Policy:* Strict no-tolerance policy for driving under the influence of alcohol, drugs, or other impairing substances.

4. Fatigue Management

- *Work Hours:* Drivers should not drive more than 10 consecutive hours within a day.
- *Rest Breaks:* 30-minute breaks should be taken after 8 hours of driving or whenever the driver desires a break during the journey.
- *Sleep:* Drivers should prioritize at least eight hours of sleep. Drivers are also encouraged to get regular medical checkups as it relates to eyesight, ergonomics and stress.

5. Emergency Procedures

Vehicle Accident Response:

In the event of a motor vehicle accident immediately take the following steps:

- Ensure all participants are accounted for and responsive.
- If any participant is ejected from the vehicle, unresponsive, or injured call 911 immediately.
- Assess your vehicle's condition to determine if it is safe to occupy and if it can safely be moved.
- If a vehicle cannot be moved, call 911 and wait for assistance.
- If it is safe to do so, participants should remain in the vehicle with seat belts fastened for everyone's safety until help arrives.

- If it is unsafe to remain in the vehicle, participants should cautiously exit and move to a safe location away from traffic but adjacent to the accident site.
- Turn on hazard lights, put on a safety vest if possible
- Do not smoke or place lit flares within 25 feet of damaged vehicles or fluids which have leaked from them.
- If a vehicle can be moved without creating further hazard, move it to a safe location adjacent to the accident site.
- Participants should remain in the vehicle with their seat belts fastened if possible.
- Exchange the following information at a safe location off the roadway:
- Name, address, phone number, insurance company, policy number, driver's license number, and license plate number for the driver and the owner of each vehicle.
- If the driver's name is different from the name of the insurance, establish what the relationship is and take down the name and address of each individual.
- Make a written description of each car, including year, model, and color the exact location of the collision and how it happened.
- Notify the nearest police station.

Breakdown Protocol:

- Put on vehicle hazard lights.
- Notify the main office of vehicular trouble.
- If the driver has prior knowledge of the reason for the mishap, then he may try to rectify the problem. Otherwise;
- A mechanic should be contacted to assist with the vehicle
- Emergency Contacts: A list of emergency contact numbers should be made readily available in the company vehicles.

6. Monitoring and Reporting

- *Telematics and GPS:* Technology can be used to monitor driving behaviour, such as speed, harsh braking, and route adherence.
- *Incident Reporting:* Drivers should promptly all incidents, near misses, and safety concerns.
- *Feedback Loop:* The HSE department should regularly review incident reports and feedback to identify trends and areas for improvement.

7. Legal and Regulatory Compliance

- *Licensing and Certification:* Drivers should have a valid license for the specific type of vehicle that they will drive.
- *Regulation Adherence:* All vehicles should have updated vehicle registrations, insurance and fitness.

APPENDIX EIGHT – OIL SPILL PLAN

The purpose of this plan is to outline procedures for the prevention, immediate response, and cleanup of oil and fuel spills during construction activities in the Kato region. The goal is to minimize environmental impacts, particularly to sensitive ecosystems such as wetlands, rivers, and mangrove areas.

Scope

This plan applies to all construction personnel, contractors, and equipment operating on or near the project site. It covers the handling, storage, and transportation of diesel, gasoline, hydraulic fluids, lubricants, and other petroleum-based products.

Spill Prevention Measures

- Secondary containment (e.g., drip trays, berms) must be used under all fuel tanks and storage containers.
- Designated refueling areas shall be located away from water bodies, with absorbent mats and spill kits on hand.
- Daily equipment checks for leaks or damage, especially hydraulic systems.
- Training for all staff in spill prevention and response protocols.
- Fuel storage shall be secured in properly labeled, sealed containers and regularly inspected.

Spill Response Procedures

Immediate Actions:

- Stop the source of the spill (shut down equipment or close valves).
- Alert the site supervisor and activate the Emergency Response Team.
- Contain the spill using booms, absorbent pads, or sandbags to prevent spread.

Notification:

- Notify relevant authorities such as the Environmental Protection Agency (EPA) of Guyana.
- Record time, location, substance spilled, estimated quantity, and immediate measures taken.

Cleanup:

- Use appropriate absorbent materials to recover spilled oil.
- Contaminated materials (soils, absorbents) must be collected and disposed of at an approved facility.
- Prevent residual contamination by thoroughly cleaning the area.

Reporting:

- Complete a formal Spill Incident Report within 24 hours.
- Include root cause analysis and recommendations to prevent recurrence.

Equipment and Supplies

- Each active work site must have access to:
- Spill kits with absorbent booms, pads, gloves, and disposal bags.
- Shovels and containers for soil removal.
- Fire extinguishers near fuel storage and usage areas.
- A list of emergency contact numbers.

Training and Drills

- Conduct monthly spill response drills simulating different scenarios (e.g., spill during refueling, leak from equipment).
- Maintain a training log with dates, attendees, and topics covered.

- New staff must be trained within one week of arrival on site.

Review and Update
This plan shall be reviewed and updated annually, or immediately following any significant spill incident or project scope change.

APPENDIX NINE – WASTE MANAGEMENT PLAN

Waste Management in Guyana

In Guyana, the two key agencies involved in waste management are the Environmental Protection Agency (EPA) and the Ministry of Local Government and Regional Development (MLGRD).

This Waste Management Plan is aligned with the following Guyana laws and regulations:

- Guyana's Environmental Protection Act of 1996;
- Guyana Regulations made under the Environmental Protection Act 1996 (No. 11 of 1996) of 2000;
- Guyana's Environmental Guidelines for the Transportation, Storage and Occupational Handling of Chemical/Industrial Hazardous Waste of 2011 (as applicable);
- Guyana's Environmental Guidelines for Removal, Treatment & Disposal of Oily Sludge of 2011 (as applicable); and
- Guyana's Environmental Guidelines for the Storage, Transportation & Occupational Handling of Biomedical Waste of 2011 (as applicable).

As such, transport owners and operators supporting the project will be required to obtain authorization for vehicles used to transport hazardous waste to the landfill area. In addition, vehicle owners and operators will be required to obtain authorization for any vehicles used to transport waste from Project facilities to the waste management facilities once or twice a week.

The Plan will be updated as needed upon issuance of any Project-specific Environmental Authorizations/Permits to reflect any specific waste management commitments, obligations, and conditions contained in those documents.

Non-hazardous waste management facilities

The project will establish dedicated Non-Hazardous Waste Management Facilities at the temporary site to handle general construction debris, packaging materials, and domestic waste. These facilities will be equipped with labeled containers for waste segregation and will follow standard procedures for collection, temporary storage, and final disposal at approved landfill sites. Regular monitoring will be conducted to ensure compliance with applicable regulations and to minimize environmental impact.

Hazardous Waste Management Facilities

The Temporary Facility will include Hazardous Waste Management Facilities designed to handle, store, and dispose of waste materials classified as hazardous under national and international standards. These may include used oil, lubricants, chemical containers, and contaminated PPE.

The facility will consist of a secure, clearly marked hazardous waste storage area with impermeable flooring and secondary containment to prevent leaks or spills. All hazardous waste will be properly labeled, logged, and stored separately from non-hazardous waste.

Disposal will be carried out through certified waste management service providers in compliance with relevant environmental regulations. Staff will receive training on hazardous waste handling procedures, emergency response, and spill containment.

Waste storage and handling

A specific area shall be laid out and labeled to facilitate the separation of materials for potential

recycling, salvage, reuse and return. Recycling and waste bins will be kept safe, in good condition, covered, clean and clearly marked in order to avoid any litter being blown around, damaged by the weather or scavenged by vandals, thieves, trespassers or animals, and to avoid the contamination of materials. If damaged they will be replaced. Skips clearly identified will encourage the workforce to deposit the correct materials into the correct skips.

Categorization of Waste

Construction phase:

Concrete waste should be broken, crushed and separated from any unwanted materials and reused in the new concrete mix or aggregate. This will reduce the volume of waste from the process. Wood should be repurposed as firewood thereby neighboring communities that require firewood would benefit from this gesture.

Plastics and Cardboard/Paper should be added to the domestic waste bins to be collected by a garbage collection company or transported to the village local landfill.

For material from the septic tank, need to check if there are licensed sludge disposal services available in Kato, if not the project will establish a self-managed desludging system. A sludge pump system will be mobilized periodically to remove sludge. Sludge will be temporarily stored in a sealed, lined pit or holding tank within the camp boundary. Once full, the sludge will be transported to a government-approved disposal facility outside the region, in coordination with the Environmental Protection Agency (EPA).

All disposal activities will follow EPA guidance, and logs of dates, volumes, and disposal sites will be maintained.

Operation Phase:

Waste oil should be collected by an authorized company to properly dispose of waste oil from the facility. Waste oil can be collected periodically, therefore storage of waste oil should be done on an impervious surface.

Oily rags can be delicately stored and stockpiled to be collected by a hazardous waste facility with the ability to incinerate oily rags.

Scrap metal can be sold to scrap metal yards which would either repurpose the scrap metal or ship them out to be recycled.

Residential quarters:

Domestic waste should be placed into commercial bins to be removed by an authorized garbage collection company or removed from the site and carried directly to the village local landfill. This waste will include plastics, paper, cardboard, biodegradable items, glass, metal (aluminum) etc.

Organic waste should be utilized in the vegetable patch as compost to add nutrients to the soil. Organic waste would require an area to create a compost and turned regularly to ensure the adequate decomposition of the matter. Organic waste can also be disposed same as domestic waste.

Water effluent and sewage will be directed to a septic tank or sediment tank for bio digestion and treatment then released into constructed ditches of the compound.

Medical waste from the operations may come in the form of gloves, gauze, bandages, syringes,

expired medications.
Sharps Disposal Bin will have syringes and other sharp medical objects for disposal. This should be a compliant sharps container that prevents sharp objects from penetrating.

Biohazards Bin will have gloves, bandages, gauze and any item with dried blood or fluids. The bin should be equipped with a red garbage bag.

Pharmaceuticals will have expired medication. This should be a blue bin.

Waste from Decommissioning

Decommissioning a construction campsite involves a comprehensive approach to mitigate any negative impacts on the environment. First, the site assessment to identify potential environmental hazards and document the current state of soil, water, and vegetation. Proper waste management is crucial, involving the segregation, recycling, and disposal of all waste types according to local regulations. When the site is handed over, the existing buildings at the of both parties (lesser and lessee) will be agree to left existing structures and building for their reuse and benefit to the owner, the rest of the structures and equipment are carefully dismantled and removed, ensuring no contamination occurs. Shipping back of equipment and machinery will be shipped back to the original contractor headquarter or to another nearby project doing by PCI-Sinopharmintl Consortium.

Also, selling equipment and machinery will be an option for PCI-Sinopharmintl Consortium. Soil and water are tested for contaminants, and remediation plans are implemented if necessary. Restoration efforts will focus on revegetation with native plants and soil stabilization to prevent erosion. Ongoing monitoring and maintenance will be done to ensure the site remains stable and free from contamination, while transparent communication with the community and stakeholders fosters trust and addresses any concerns. Compliance with all relevant environmental regulations is strictly maintained, and a detailed final report is prepared to document the decommissioning activities and environmental measures taken.

Waste logistics

Waste will be collected and disposed of by a local waste contractor, who shall transport both non-hazardous and hazardous waste offsite for the duration of the project. Copies of their Waste Management License and Waste carriers license will be held in the site filing system Waste logs and documentation for both hazardous and non-hazardous waste management for cradle-to-grave tracking of all waste movements would be enforced.

Waste Hierarchy

Project wastes will be reduced, recycled, and reused where practicable, with the remainder being treated as needed and properly disposed. The following waste hierarchy shall apply as a priority order in waste prevention:

- Eliminate- Design out waste
- Prevention- lower the amount of waste Produced
- Re-use- Use materials repeatedly
- Recycling-use materials to make new Products
- Recovery-Recover energy from waste
- Disposal-safe disposal of waste to landfill

Education and Training

PCI-Sinopharmintl Consortium will provide on-site instruction of appropriate separation, handling, recycling, reuse and return methods to be used by all parties at all appropriate stages of the Project. Toolbox talks will be carried out every month on waste issues and all subcontractors will be expected to attend.

Monitoring and Reporting

A log will be maintained of all materials that come on to the site, and details will be obtained from the waste disposal company of the quantity of waste materials removed from the site. Details will also be provided outlining the recovery/disposal actions for the specific waste streams. Waste receptacles will be monitored to ensure that contamination has not occurred, results will be recorded. PCI-Sinopharmintl Consortium will continually review the type of surplus materials being produced and change the site set up to maximize reuse or recycling and the use of landfill will be the last option.

Evaluation of Waste Management Plan

At the end of the project, as part of the final report, the following information will be made available:

- Type of wastes generated on site
- Amount of waste generated on site
- Re-use on, and off site, recycling rates and diversion from landfill.

APPENDIX TEN – DRAINAGE MANAGEMENT PLAN

The drainage system construction of the main Camp and Sub-camp is essential to prevent waterlogging, soil erosion, and contamination of local water bodies. Effective drainage management ensures the safety, health, and environmental sustainability of the construction site.

Objectives

- To manage stormwater and prevent water accumulation.
- To minimize soil erosion and sediment transport.
- To protect local water bodies from contamination.
- To ensure the safety and health of the construction workforce.

Site Assessment

Topography: Analyze the slope and natural drainage patterns of the site. Soil Type: Determine soil permeability and compaction characteristics.
Climate: Consider rainfall patterns and intensity.
Existing Drainage: Identify natural watercourses and existing drainage infrastructure.

Technical Aspect

- Camp drainage is divided into surface natural drainage and domestic sewage discharge.
- Drainage ditches are set up in front and behind the houses in the camp, and main drainage ditches are set up around the camp, and connected to the ditch located in the north of the planned camp, for the natural discharge of surface water in and around the camp. When the rainy season comes, the floodwaters around the camp will be directed into the ditch behind the camp, and the floodwaters farther away from the camp will be discharged by themselves.
- The sewage in the camp is collected into the sewage sedimentation tank in the camp through a special PVC pipe. After being filtered and meeting Guyana's environmental requirements, it is discharged into the ditch near the camp. The sediment treatment in the sedimentation tank is carried out regularly through companies with corresponding qualifications in Guyana.
- The campsite housing adopts simple container-type board houses, which have high structural rigidity and light weight. There will be no collapse in the event of heavy rainfall or floods.
- The campground is equipped with water pumps and water trucks to alleviate flooding and water accumulation in the campground.

Implementation

- Construction of Drains: Excavate and construct drains as per design specifications.
- Installation of Control Measures: Set up sediment control measures and retention ponds.
- Maintenance Schedule: Develop a regular maintenance schedule to clear debris and sediment from drains and control structures.

Supervision and Inspection

- Regular Inspections: Conduct periodic inspections to identify and rectify blockages, damages, or breaches in the drainage system.
- Training: Train construction personnel on the importance of drainage management and the proper use of drainage infrastructure.
- Waste Management: Ensure proper disposal of construction waste to prevent clogging of drains.
- Emergency Response: Prepare an emergency response plan for heavy rainfall events and drainage failures. (Please see emergency response plan, related to flooding risk management)

APPENDIX ELEVEN – COMMUNITY HEALTH AND SAFETY PLAN

This Community Health and Safety Plan aims to prevent accidents, injuries, and health issues among workers and nearby residents, promoting a safe and healthy living and working environment while minimize the risk of accidents and health hazards and to rise safety awareness and best practices among workers and community members.

Community Assessment
Community Assessment, should have the following main areas to assess and accommodate preventive measurements.

- Hazard Identification: Identify potential hazards such as heavy machinery, hazardous materials, and high-traffic areas.
- Risk Assessment: Evaluate the likelihood and impact of identified hazards.
- Community Proximity: Assess the distance and interaction between the construction camp and nearby communities.

Safety Policies and Procedures

- Safety Protocols: Establish clear safety protocols for all construction activities.
- Emergency Procedures: Develop emergency response plans for fire, medical emergencies, and natural disasters.
- Personal Protective Equipment (PPE): Mandate the use of PPE like helmets, gloves, and safety boots.

Training and Awareness

- Safety Training: Conduct regular safety training sessions for workers.
- Emergency Drills: Organize periodic drills to ensure preparedness for emergencies.
- Awareness Programs: Educate workers and community members about safety measures and potential hazards.

Health and Hygiene

- Sanitation Facilities: Provide adequate sanitation facilities, including clean water, toilets, and waste disposal systems.
- Medical Services: Ensure access to on-site medical services and first aid and offer medical service to the community for prompt response to emergency
- Hygiene Practices: Promote hygiene practices such as handwashing and safe food handling.

Traffic Management

- Traffic Control: Implement measures to control traffic flow within and around the construction camp.
- Signage: Use clear signage to direct vehicles and pedestrians safely.
- Regularly patrolling within the communities will allow to assess the performance and traffic control car/truck enforcing speed limits to reduce the risk of accidents.

Security Measures

- Access Control: Restrict access to authorized personnel only.
- Surveillance: Use security cameras and patrols to monitor the site.
- Lighting: Ensure adequate lighting in and around the camp to deter unauthorized access and

reduce accidents.

Environmental Safety

- Waste Management: Implement proper waste disposal practices to prevent environmental contamination.
- Noise Control: Use noise control measures to minimize disturbance to nearby communities.
- Dust Suppression: Apply dust suppression techniques to reduce air pollution.

Monitoring and Reporting

- Regular Inspections: Conduct regular safety inspections to identify and rectify hazards. Incident Reporting: Establish a system for reporting and investigating accidents and incidents.
- Continuous Improvement: Use feedback from inspections and reports to continuously improve safety measures.
- Communication mechanism within the Camp Managers, work force, stakeholder and local community, will provide the possibility to express / officially record all concerns, complaints and grievances of individuals or society and to facilitate resolutions that should be mutually accepted by the parties. Throughout project execution the mechanisms to communicate grievances and complains by individuals and communities will remain active, and the procedures of recording and response will be adapted regularly, according to the local authorities' necessity.

APPENDIX TWELVE – WORKERS' HEALTH AND SAFETY PLAN

Introduction
This Workers' Health and Safety Plan outlines the procedures and practices to ensure the health, safety, and welfare of all personnel involved in the Guyana construction project. It complies with applicable occupational health and safety regulations.

Objectives
- Prevent accidents, injuries, and illnesses on site.
- Provide a safe working environment for all personnel.
- Ensure compliance with relevant national safety laws and site-specific regulations.
- Promote a safety culture through training, supervision, and communication.

Scope
This plan applies to all workers, subcontractors, and visitors at the construction site located in Guyana.

Responsibilities
Project Manager:
- Ensure implementation of the safety plan.
- Allocate resources for safety measures.
- Oversee compliance.

Site Safety Officer:
- Conduct daily site inspections.
- Report hazards and incidents.
- Lead toolbox talks and emergency drills.

Workers and Subcontractors
- Follow safety protocols.
- Attend safety training.
- Report unsafe conditions.

Risk Identification and Control
The following **Table 18** outlines key risks and control measures:

Table 18: Risk and Control Measures for Workers' Health and Safety

Activity	Potential Hazards	Control Measures
Excavation	Collapse, falling debris	Shoring, PPE, supervision
Working at heights	Falls	Scaffolding, harnesses, guardrails
Electrical work	Shock, burns	Lockout/tagout, insulated tools
Heavy machinery	Collision, roll-over	Trained operators, safety zones

Personal Protective Equipment (PPE)

- Hard hats
- Safety boots
- High-visibility vests
- Gloves and goggles (as required)
- Fall arrest systems when working at height

Safety Training

- Site-specific induction training for all workers
- Weekly toolbox meetings
- Specialized training (e.g., scaffolding, welding, electrical safety)

Emergency Procedures

Please refer to the Emergency Response Plan.

Incident Reporting and Investigation

All accidents, injuries, or near-misses must be reported immediately to the Site Safety Officer. Incidents will be documented and investigated to prevent recurrence.

Monitoring and Review

This safety plan will be reviewed monthly or after any major incident. Improvements and updates will be documented and communicated to all personnel.

APPENDIX THIRTEEN – WORKERS' INFLUX MANAGEMENT PLAN

Process for Contractors to Inform a Village Council of Worker Influx into an Indigenous Village

This process ensures that the introduction of workers into an Amerindian village respects the **Amerindian Act 2006**, maintains community control over land access, protects local customs, and safeguards against social disruption, including **community conflict and gender-based violence (GBV)**.

The **Amerindian Act 2006** outlines the requirements for entry into Amerindian communities as follows:

1. **General Entry Requirement**:
    - Any person wishing to enter Village lands must first apply for and obtain permission from the Village Council.
    - Failure to obtain permission is an offense, punishable under the First Schedule of the Act.

Step 1: Pre-Engagement Consultation with the Village Council
Timeframe: At least **two months** before mobilization

1. The contractor must formally **notify** the Village Council **in writing** of the anticipated influx of workers, including:
    - The number of workers.
    - Duration of stay.
    - The nature of work to be conducted.
    - Measures to mitigate environmental and social impacts.
2. The contractor must **request a meeting** with the Village Council to discuss worker entry and obtain permissions.
3. During this meeting, the contractor must:
    - Present a **worker influx management plan** (see Step 2).
    - Engage in a **free, prior, and informed consultation** respecting Indigenous decision-making customs.
    - Agree on conditions of entry and conduct for workers.

- The contractor must cause the worker to present themselves to the police outpost in the village to register their particulars in the recognizance book. The written notice shall include

- The name of each worker
- A photograph of the worker's ID or passport
- Usual place of residence of the worker
- The occupation of the worker on the project
- The intended departure date of the worker from the village

Step 2: Worker Influx Management Plan & Agreement
Timeframe: Developed jointly during the pre-engagement consultation
The contractor and Village Council shall agree on a **Worker Influx Management Plan**, which includes:

1. **Code of Conduct for Workers**
    - Prohibition of **sexual exploitation, GBV, harassment, and discrimination**.
    - Respect for local customs and **restricted access** to sacred and residential areas.
    - Participate in community sensitivity orientation by the village council
    - Ban on alcohol outside the camp.
    - Ban on firearms unless explicitly permitted
    - Clear disciplinary measures for violations.

2. **Worker Identification & Registration**
    - Workers must **carry identification** and **wear uniforms or badges** to distinguish them from residents.
    - The contractor must **submit a list of workers** to the Village Council before mobilization.

3. **Housing & Living Arrangements**
    - Workers should **not** reside within the village unless approved by the Village Council.
    - If housed nearby, the contractor must ensure proper sanitation, security, and **zero tolerance for exploitative relations** with villagers.

4. **Community Liaison Officer & Grievance Mechanism**
    - A **Community Liaison Officer (CLO)** must be appointed to facilitate communication between the contractor and the Village Council.
    - A **grievance mechanism** must be in place for villagers to report worker misconduct confidentially.

Step 3: Formal Permission & Village Council Oversight
Timeframe: One month before worker mobilization
1. The Village Council **reviews the agreement** and grants or denies permission.
2. If granted, the Village Council **issues written approval** with any additional conditions.
3. The Village Council has the right to:
    - **Revoke permission** if the contractor violates the agreement.
    - **Conduct spot-checks** on worker behavior.

Step 4: Worker Orientation & Community Awareness
Timeframe: One week after workers arrive
1. The contractor **conducts cultural sensitivity training** for workers in collaboration with the Village Council.
2. The Village Council may **introduce workers to the community** to reduce fear and tension.

Step 5: Continuous Monitoring & Compliance
1. The contractor must **submit periodic reports** on worker behavior and community impact.
2. The Village Council, with the **CLO**, will **monitor adherence** to the agreement and address concerns.
3. Any violation must be reported immediately to the **contractor, Village Council, and relevant authorities** for action.

APPENDIX FOURTEEN – TEMPORARY FACILITY DESIGN AND HOSPITAL LAYOUT WITH LAND PERMISSION

Temporary Facility Design

The layout includes the following zones:

- Project Office & Living Quarters: Administrative offices and accommodations for project staff.
- Worker Living Area: Housing and amenities for construction personnel.
- Material Storage Areas:
    - Steel structures
    - MEP (mechanical, electrical, plumbing) installation materials
    - Finishing & decorative materials
    - Medical-specific materials and equipment
- Concrete Batching Plant
- Cement Storage Warehouse
- Gravel Stockpile Yard
- Steel Reinforcement Processing Workshop
- Carpentry Workshop
- MEP Fabrication Workshop
- Door/Window Assembly Workshop
- Equipment Parking Zone
- Construction Waste Temporary Storage
- On-site Generator Room

Facility Placement

Located within the primary construction site:

- Steel Reinforcement Processing Workshop
- Carpentry Workshop
- MEP Fabrication Workshop
- All other temporary facilities are planned outside the planned construction area.

Temporary Site Utilization Plan

Facility	Floor Area（sq.m）	Occupancy Period
Project Office & Living Quarters	2000	04/01/2025 – 10/30/2027
Worker Living Area	1500	
Material Storage Areas	4000	
Extra Material Storage Areas	4000	
Concrete Batching Plant	160	

Cement Storage Warehouse	160	
Gravel Stockpile Yard	160	
Door/Window Assembly Workshop	200	
Equipment Parking Zone	400	
Construction Waste Temporary Storage	100	
On-site Generator Room	30	
Total	**12710**	

4. Additional Infrastructure & Energy Requirements

Supporting Facilities

- Roads, drainage ditches, and other essential infrastructure are included in the temporary site plan.
- Total temporary site footprint: Approximately 16,200 sq.m, see the attached drawings for details.

Solar Power Installation

- An additional 2,500-3,000 sq.m is required for solar panel arrays.

Purpose: To meet the power demands for on-site construction and living facilities.

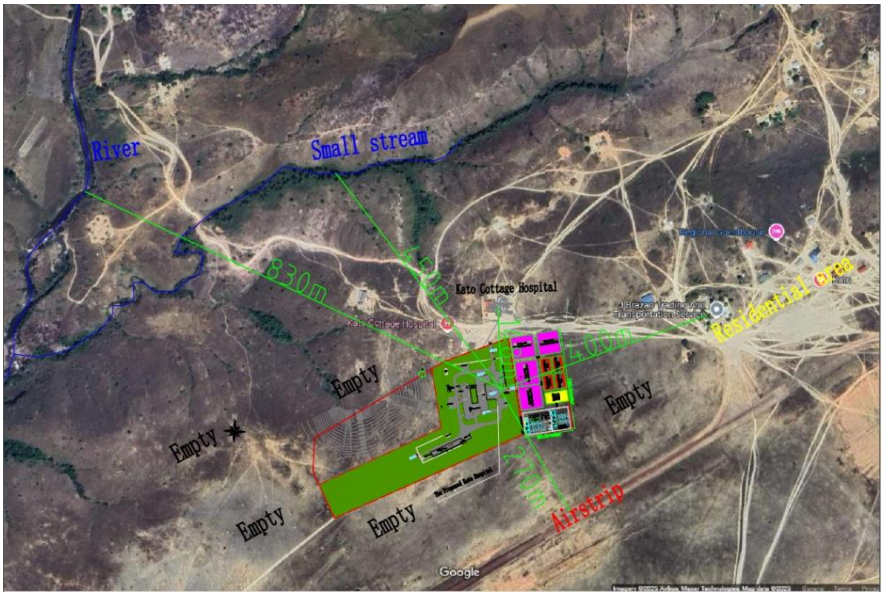
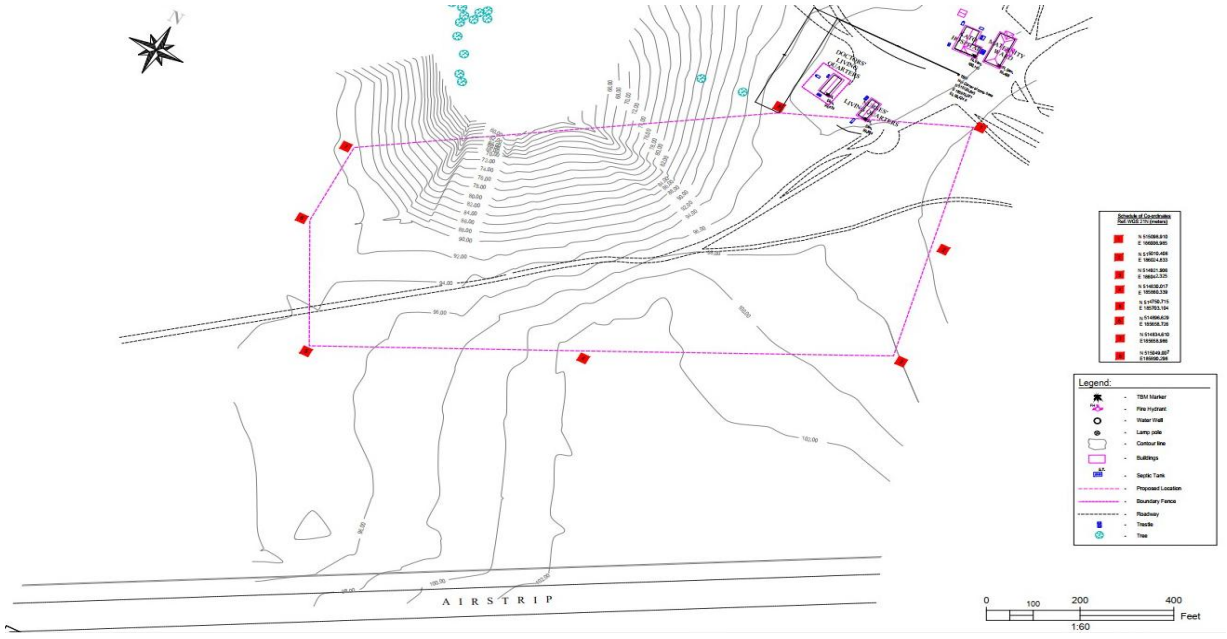


Figure 16: Map of Camp



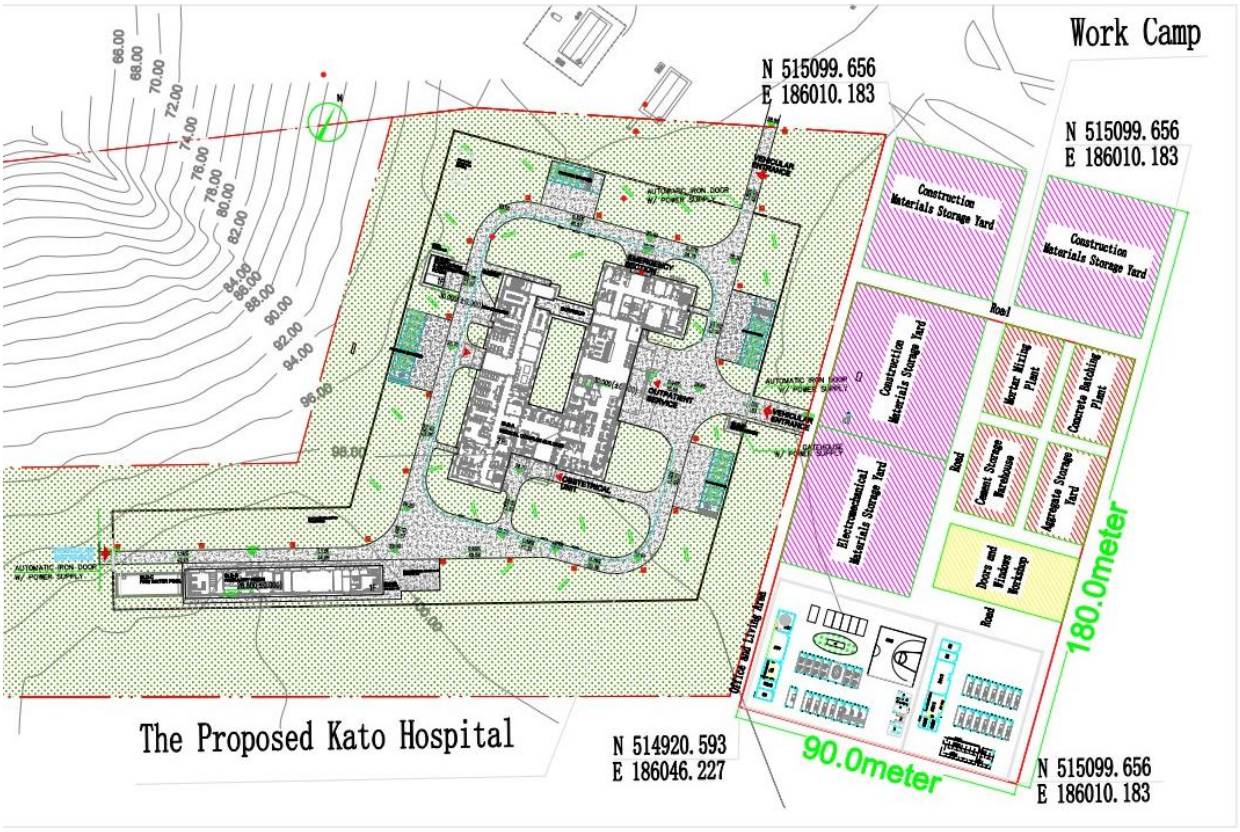
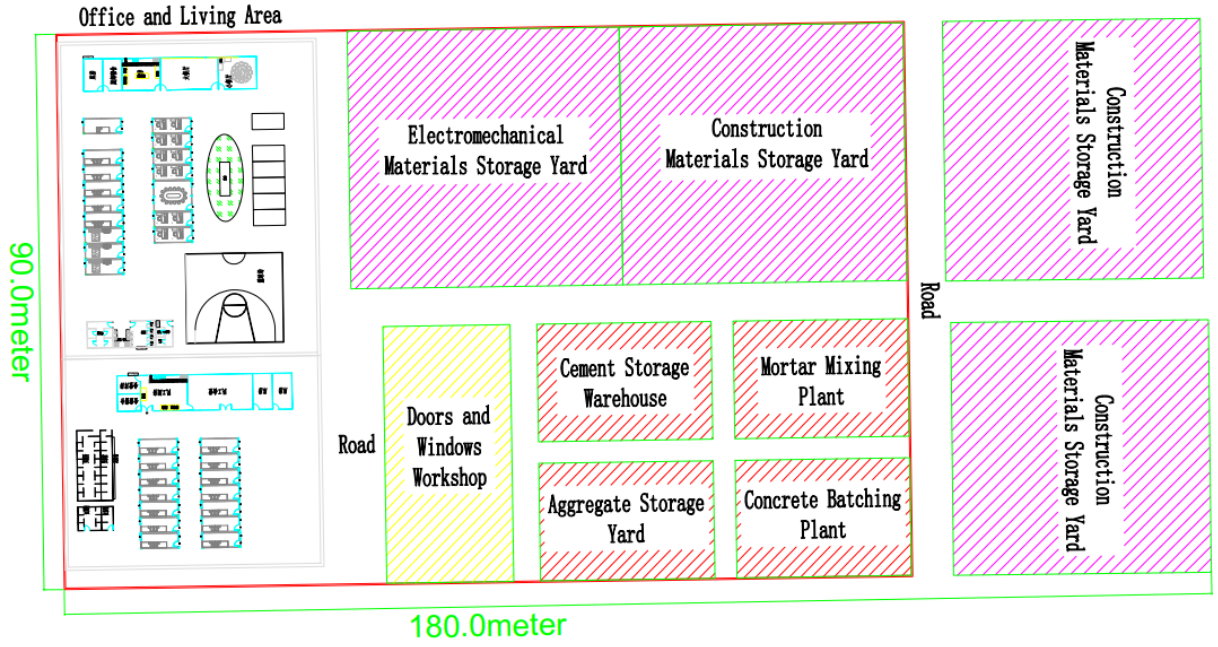


Figure 17: Building and Camp Layout



Land Permission-Hospital Site

KATO VILLAGE COUNCIL
KATO VILLAGE, NORTH PAKARAIMAS
REGION # 8

28th September 2023

Hon. Dr. Frank Anthony
Minister of Health
Ministry of Health
Brickdam, Georgetown

Dear Hon. Minister,

RE: Allocation of 15 Acres Plot of Land for the Construction of Hospital Complex

With reference to the above caption, please be informed that a village general meeting was held on 17th -09- 2023.

At the meeting the issue regarding the construction of the hospital was raised and everyone in attendance agreed to the plot of land to be utilized by the Ministry of Health for the construction of the Hospital Complex.

All for your information.

Yours respectfully,

Mr. Elvan James
Toshao

KATO VILLAGE COUNCIL
Elvan James
Toshao, Justice Of Peace
Date 28-09-2023

Land Permission-Camp Site

Kato Village Council

Kato Village, North Pakaraimas, Potaro – Siparuni

Mrs. Shen Den
Contractor's Representative
PCI – Sinopharmintl Consortium
801 8th Floor, Building 23 No. 17, Xicul Road,
Haidian District, Beijing China.

Date: 28th March, 2025

Re: **Permission to use Land to commence construction of the Regional Hospital in Kato Village**

Dear sir/ madam,

I am writing to you in my capacity as the Toshao of Kato village to formally grant permission for your construction company **PCI- Sinopharmintl Consortium** to utilize the identified land for the construction of the Kato Regional Hospital. This initiative is expected to greatly benefit our community/ region and we look forward to your collaboration.

As part of this agreement, we acknowledge the need for the establishment of a temporary building/worksite to accommodate both materials and workers on site. Which will ensure a smooth construction process while minimizing disruption to the local environment, please note that this temporary facility will need to be dismantled and the land used will go back to the village after construction is completed.

Additionally, it is imperative that your company adhere to the established village rules during the entirety of the project. These guidelines are designed to promote safety, environmental responsibility, and respect for our community. We trust that you will ensure compliance with these regulations throughout the construction phase.

Should you have any questions or require further clarification on the community's guidelines, please do not hesitate to reach out. We are eager to work together to make this project a success.

Sincerely,

KATO VILLAGE COUNCIL
L. Beagao
Toshao, Justice Of Peace
Date 28-03-2025

Kato Village Council

Kato Village, North Pakaraimas, Potaro – Siparuni

RULES AND REGULATIONS FOR PROJECTS BEING DONE IN KATO VILLAGE

It is crucial that all contractors adhere to these rules to ensure a harmonious and mutually beneficial working relationship within the community. As the supervisor of a construction service, it is imperative that you and your team comply with the following village regulations

1. Upon receiving a contract, the contractor must inform the Kato village council at least 2 weeks prior to the commencement of the project.
2. Provide all Necessary documentation for the project, including but not limited to the BQ
3. Establish Harmonious working relationship with Village council and local stakeholders.
4. The village council is responsible for making routine visits to the project site.
5. The village council is to be compensated for any resources extracted from the Kato village lands in the form of royalties.

   Prices:

   Stone - $10,000 per truck load.

   Sand - $8,000 per truck load.

   Wood - $20 per bm
6. Provide identification to the village council for all workers.
7. Inform the village council of any relevant and significant changes made in relation to the contract e.g timeline extension, change of workers.
8. Once a project is completed, the project site and the site where workers stayed during the duration must be cleaned and cleared of all construction debris.

KATO VILLAGE COUNCIL
L. Brazan
Toshao, Justice Of Peace
Date 28-03-2025

APPENDIX FIFTEEN – CONSULTATION REPORT FOR THE DISCLOSURE OF THE ESA AND ESMP FOR THE WORKERS' CAMP

1.0 Introduction

This report summarizes the consultation process conducted for the Environmental and Social Assessment (ESA) and Environmental and Social Management Plan (ESMP) related to the workers' camp for the construction of the new Kato Hospital in Region No. 8, Guyana. The consultation was undertaken by PCI-Sinopharmintl Consortium, the contractor for the project, in collaboration with the Ministry of Health (MOH) and other key stakeholders. The primary goal was to ensure that relevant environmental, social, health, and safety management measures were disclosed and effectively communicated to stakeholders, in accordance with the Inter-American Development Bank's (IDB) Environmental and Social Performance Standard (ESPS) 10: Stakeholder Engagement and Disclosure.

2.0 Project Overview

The Health Care Network Strengthening (HCNS) project (GY-L1080), funded by the IDB (USD $97M), aims to improve healthcare access across Guyana. A key component of this project is the construction of a new regional hospital in Kato. The ESA and ESMP are essential for managing the environmental and social impacts of the temporary workers' camp needed to support the hospital's construction. The Ministry and the contractor emphasized their commitment to inclusive participation throughout the project.

3.0 Consultation Objectives

The consultation process aimed to:

- Inform stakeholders about the project and disseminate information about the workers' camp, including its design, features, potential impacts, and mitigation measures.
- Initiate open dialogue to clarify project elements, provide a platform for stakeholders to discuss the project, raise concerns, share expectations, and give recommendations.
- Receive feedback from stakeholders on environmental, social, health, and safety concerns associated with the project activities.

4.0 Consultation Activities

The consultation process included the following activities:

- **Notification Mechanism:** An official letter was sent to the Kato Village Council on June 23rd, 2025, formally announcing the disclosure of the proposed ESA and ESMP for the workers' camp and inviting them to participate in a Public Disclosure Meeting.

- **Public Disclosure Meeting:** A face-to-face meeting was held on July 2nd, 2025, at the Kato Community Centre, facilitated by the MOH and PCI-Sinopharmintl Consortium. The meeting commenced at 10:30 AM with a prayer and recitation of the National Pledge of Guyana.
    - **Welcome and Introductions:** Toshao [redacted] opened the session and introduced [redacted] Hinterland Coordinator, MOH, who provided an overview of the project.
    - **Environmental and Social Overview:** [redacted] (Environmental and Social Officer, MOH) highlighted the Grievance Redress Mechanism (GRM) and its core principles (Confidentiality, Equity, and Non-Discrimination).
    - **Contractor Presentation:** [redacted] (PCI-Sinopharmintl Consortium) presented the camp layout, staff accommodations, waste management, hospital design, and environmental management measures. The hospital will be a 2-story structure with 9 complexes. The camp will house approximately 40 persons (management and labourers), including 20 local workers.
    - **GeoEnvironmental & Surveying Solutions (GESS):** Team of Environmental and Social Specialists delivered a presentation summarizing the findings of the Environmental & Social Assessment including the proposed management measures and mitigation strategies to address identified issues throughout the project.
- **Feedback Channels:** Stakeholders were encouraged to provide feedback through designated representatives, grievance boxes (locations to be guided by the Village Council), and direct contact with the contractor (email: katoprojectpowerchina@gmail.com, phone: +592 759 8933).

5.0 Stakeholder Feedback and Responses

During the Public Disclosure Meeting, community members raised several questions and concerns:

- **Monitoring Outsiders:** Concerns were raised about monitoring outsiders and ensuring safety for residents. The Toshao stated that Bamboo Creek would manage registration for workers from neighbouring villages.
- **Job Opportunities:** Questions were asked about the availability of management positions. Contractor clarified that qualified individuals could apply for supervisory roles. A register for jobseekers outside of Kato will be kept by the Village Council.
- **Worker Housing:** Concerns were raised about the housing arrangements for workers. MOH stated that the Village Council would decide, and workers may need to commute depending on accommodation availability.
- **Disciplinary Measures:** Questions were asked about disciplinary measures for workers from neighbouring villages. The response was that disciplinary action falls under the Village Council's jurisdiction.
- **Waste Management:** Concerns were raised about waste disposal. Consultants stated that waste management would be implemented at each project stage and include Kato and surrounding villages.

- **Gender Equality:** Concerns were raised about gender equality in the workforce. The MOH/Contractor acknowledged this and urged workers not to misuse salaries on alcohol, as absenteeism will delay the project.
- **Grievance Redress:** MOH emphasized that the Village Council remains the first point of contact for complaints.
- **Local Worker Training:** Concerns were raised regarding training for local workers. It was clarified that all workers will receive induction training under the Labour Management Plan.
- **Language Barriers:** A resident recommended introducing Mandarin language training to help bridge cultural gaps.
- **Project Oversight:** The community suggested involving more Village Council members in project oversight to reduce the burden on the Toshao.

6.0 Next Steps

The ESA and ESMP will be updated/revised based on the recommendations provided during the disclosure session. The updated document will be submitted to the Ministry of Health and the IDB in July 2025 for review and approval. Following the IDB's approval, the Consortium will proceed with the implementation of the Plan, in full alignment with the approved environmental and social safeguards, national regulations, and IDB's Environmental and Social Performance Standards.

6.0 Stakeholders

Key stakeholders involved in the consultation process included:

- Residents
- Kato Village Council
- Kato Cottage Hospital
- Ministry of Health (MoH)
- Guyana Police Force
- Regional Democratic Council (Region 8)
- PCI-Sinopharmintl Consortium

7.0 Closing Remarks

MOH reinforced the importance of Village Council oversight, transparency, and ongoing communication. He reiterated project timelines and upcoming final design presentations. The meeting concluded at 12:16 PM.

PCI-SINOPHARMINTL CONSORTIUM

June 23rd, 2025 **Reference No: PCI-S/GUY/KOH/25/012**

Toshao [redacted]

Kato Village Council

Kato, Region No.8, Guyana.

RE: NOTIFICATION OF DRAFT ESA/ESMP AND INVITATION TO CONSULTATIVE MEETING

Dear [redacted],

As you may be aware, the Ministry of Health is undertaking the Health Care Network Strengthening (HCNS) project (GY-L1080) to improve healthcare access across Guyana. This project includes the construction of a new regional hospital in Kato. To ensure the project proceeds in an environmentally and socially responsible manner, an Environmental and Social Assessment (ESA) and Environmental and Social Management Plan (ESMP) are required, as per the Inter-American Development Bank's (IDB) policies. As the contractor, PCI-Sinopharmintl Consortium has developed a draft ESA and ESMP that focuses specifically on the construction and operation of the temporary workers' camp that is needed to support the hospital's construction. This plan addresses potential impacts related to the camp, including areas such as waste management, community relations, and workers safety, etc., and forms part of the project-level ESA and ESMP, which is currently being developed by the contractor, and which will also be consulted on with Kato's Village Council and other stakeholders once drafted.

Your village's participation and insights are highly valued in this process to ensure the project do not negatively impact on the community and the environment. In this regard, we kindly invite you to an engagement session to review and discuss the draft ESA and ESMP for the Workers' Camp. The meeting is proposed to be held at the Community Centre pavilion in Kato, on July 2nd, 2025, at 10:00 am.

We also seek your support in mobilizing the members of the Village Council to participate in this important discussion. Additionally, representatives from the Ministry of Amerindian Affair, Ministry of Health, Kato Cottage Hospital and RDC sub-office will also be invited to participate in the session. PCI-Sinopharmintl Consortium's Technical staff and Environmental and Social Specialists will also be in attendance.

ADD: 3rd Floor, R&S Mall Apartment District Track JW, Mandela Avenue,
Durban Backlands, Georgetown, Guyana
Tel: +592 636 6948

PCI-SINOPHARMINTL CONSORTIUM

Enclosed with this letter are both hard and soft copies of the draft ESA and ESMP for review by participants from the village. All participants are welcome to send any comments or questions in advance via email at katoprojectpowerchina@gmail.com or by phone at +592 759 8933.
Participation of your village is crucial to ensure that the project aligns with the needs and concerns of the Kato community. We look forward to your confirmation of the proposed venue, date and time, and to engaging with the village of Kato during this important process.

Thank you for your cooperation and support

Yours sincerely,

Contractor's Representative / Project Manager

[redacted]
Authorized Signature

Cc. [redacted] Permanent Secretary
Ministry of Health

[redacted] Project Coordinator
Project Implementation Unit
Ministry of Health

ADD: 3rd Floor, R&S Mall Apartment District Track JV, Mandela Avenue,
Durban Backlands, Georgetown, Guyana
Tel: +592 636 6948

PCI-SINOPHARMINTL CONSORTIUM

Project: Health Care Network Strengthening (HCNS) in Guyana Project (GY-L1080)

Meeting Agenda: Disclosure of Environmental & Social Assessment (ESA) and Environmental & Social Management Plan (ESMP) for Workers' Camp for the Construction of Kato Hospital.

Location: Kato Community Centre, Region No. 8, Guyana

Date & Time: July 2nd, 2025, 10:30 am | Duration: 1 hour 30 minutes

---

1. Welcome and Announcements *(5 minutes)*
   - Opening remarks and introductions
   - Purpose and importance of the meeting

2. Project Overview by the Ministry of Health *(10 minutes)*
   - Background of the HCNS project
   - Community and environmental benefits of the Project.
   - Grievance Redress Mechanism

3. Design, Construction, and Operation of the Camp by Contractor *(15 minutes)*
   - Objectives and scope of the Workers' Camp component
   - Key design features and construction activities
   - Operational processes and environmental considerations

4. Presentation of ESA/ESMP by the Contractor's E & S Specialists *(20 minutes)*
   - Summary of Environmental & Social Assessment findings
   - Proposed management measures and mitigation strategies
   - Compliance and safety protocols

5. Q&A Session (15 minutes)
   - Community questions, clarifications, and discussions

6. Closing Remarks (5 minutes)
   - Summary of main points
   - Next steps and contact info
   - Thank you and end of session

Disclosure of Environmental & Social Assessment and Environmental and Social Management Plan for Workers' Camp

Construction of Kato Hospital in Region No.8

Date: 07/02/2025

Time: 10:30 AM – 12:16 PM

Location: Kato Village, Region 8

Facilitator: Ministry of Health (MOH), Power China International

1. Opening

- The meeting commenced at 10:30 AM with a prayer and recitation of the National Pledge of Guyana.

2. Welcome and Introductions

- Toshao [redacted] opened the session and introduced [redacted] (Hinterland Coordinator, MOH).
- Hinterland Coordinator (MOH0 provided an overview of the project, noting that:
  - Kato's hospital is part of the Healthcare Strengthening Programme.
  - The aim is to involve the community in the planning process, gathering input, concerns, and opinions from residents.
  - The project is funded by the Inter-American Development Bank (IDB) with USD $97M through the MOH and in agreement with the Government of Guyana and the communities involved.
  - Increased employment is expected for Kato and surrounding villages.

3. Environmental and Social Overview – [redacted] (Environmental and Social Officer, MOH)

- Introduced key project personnel:
  - [redacted] – Lead Engineer (MOH)
  - [redacted] – Environmental Specialist (C.B and Associates)
  - [redacted], [redacted], [redacted], [redacted] – Contractor representatives.
- MOH E&S Officer is the main focal point for the GRM.
- Submissions can be made through designated representatives or Grievance boxes placed on-site. The Village Council involvement is key to administration and oversight.
- Complainants will be notified of outcomes and may appeal if unsatisfied.
- Concluded at 10:59 AM.

4. Contractor Presentation – [redacted] (Power China International)

- Presentation included camp layout, staff accommodations, waste management, and hospital design.
- Hospital: A 2-story structure with 9 complexes, including in-patient and out-patient sections, steel structure, 45-bed capacity, 2 delivery rooms, and ICU facilities. The Out-patient department and lavatories will be located on the 1st floor.
- Camp: To house approximately 40 persons (management and laborers).
- Environmental Management: Includes septic tanks for wastewater and waste segregation for solid waste.

5. Community Discussion & Q&A

Table 5.1 – Questions and Feedback

Category	Question/Feedback	Response/Action
Outsider Management	System to monitor outsiders & ensure safety?	Bamboo Creek manages worker registration; non-residents follow Kato's rules; foreign workers register with Village Council.
Job Opportunities	Are there management positions, or only labourer roles?	Qualified individuals can apply for supervisory roles. A register for job-seekers outside of Kato will be kept by the Village Council
Worker Housing	Will outsiders be housed with Chinese workers, or within the community?	The Village Council will decide. Workers may need to commute depending on accommodation availability.

Worker Discipline	What disciplinary measures for workers from neighbouring villages? What about language barriers?	Disciplinary action falls under the Village Council's jurisdiction. The Contractor has on site bi-lingual site managers.
Construction Waste	Can construction waste be reused?	Yes, debris can be used for furniture, firewood, etc. The Council will oversee construction of tents/shelters for non-resident workers.
Workforce Issues	Gender equality in the workforce (Resident Concern)	Acknowledged as a concern. Toshao urged workers not to misuse salaries on alcohol, as absenteeism will delay the project.
Complaints	Where to direct complaints?	The Village Council remains the first point of contact for complaints. The GRM outlines all the focal point of contacts for complaints.
Worker Training	Will local workers receive training?	All workers will receive induction training under the Labour Management Plan.
Project Involvement	Project oversight and Village Council inclusion.	A Village Council representative should attend all project meetings. A formal Agreement between the Contractor and Council was suggested.
Worker Safety/Health	What happens in the unfortunate event of a worker's death?	The Ministry of Labour will address such situations. Safety mechanisms are in place. Medical screening is recommended before employment.
Worker Requirements	Will ID, NIS, TIN be required for employment?	The Ministry and NIS can assist with registrations.
Worker Mobility	What systems exist for upward mobility during the 2-year project?	Training will be provided based on qualifications and experience.
Cultural Considerations	Introduce Mandarin language training. (Resident Recommendation)	The MOH noted the suggestion.
Construction Timeline	When will construction begin?	The camp site should be ready by August. Pending approval, hospital construction should begin by late August or September. MOH will return in August to present final designs.
Waste Disposal	Concern about waste disposal (Resident Concern).	Waste management will be implemented at each project stage and include Kato and surrounding villages. The Toshao indicated that waste is currently buried in pits; however, a more appropriate site is under review. Pits must avoid water bodies to prevent contamination.

6. Environmental Presentations

- **Contractor Representative:** Will guide contractor through ESMP (Environmental and Social Management Plan) development. Assessments and consultations will continue.
- **Contractor Representative:** ESMP will examine impacts such as noise, water, and waste. The contractor is legally obligated to meet environmental requirements.
- **Contractor Representative:** Socio-economic impacts and concerns raised today will be integrated into the ESMP.

7. Closing Remarks – [redacted]

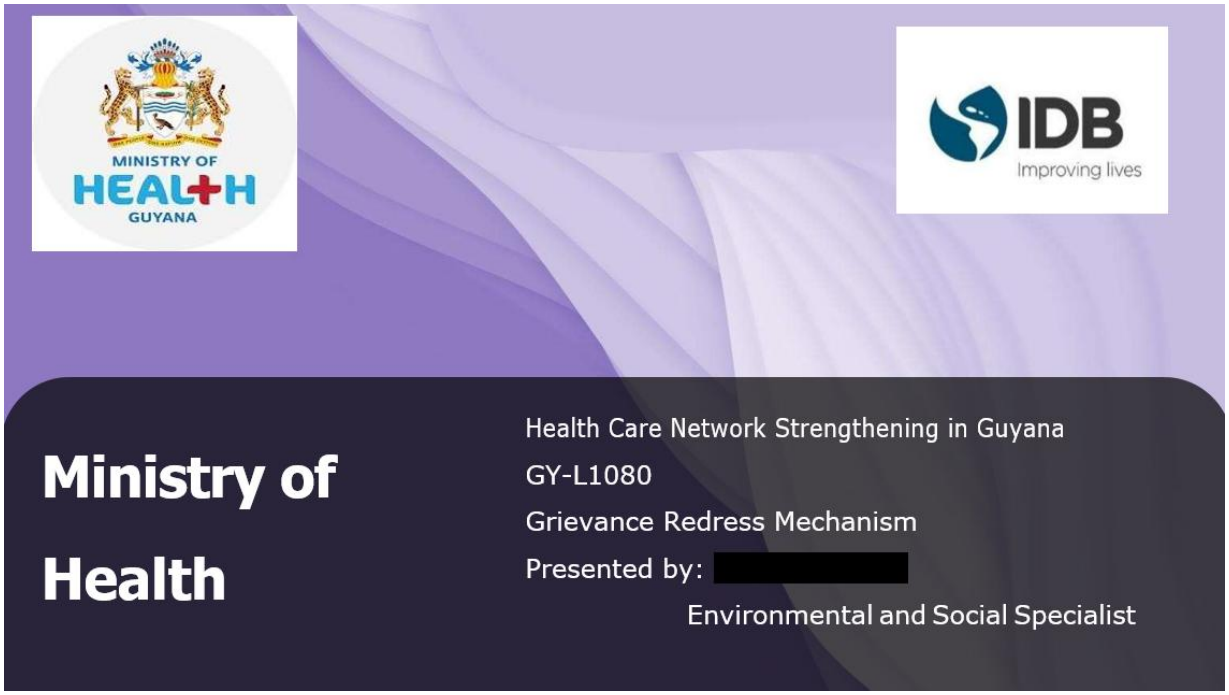
- Reinforced the importance of Village Council oversight, transparency, and ongoing communication.
- Reiterated project timelines and upcoming final design presentations.

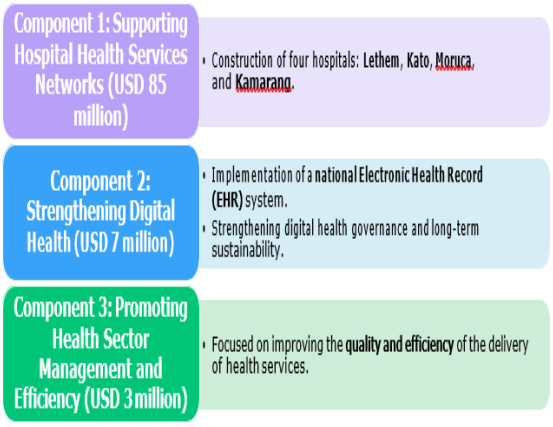
Meeting concluded at 12:16 PM.

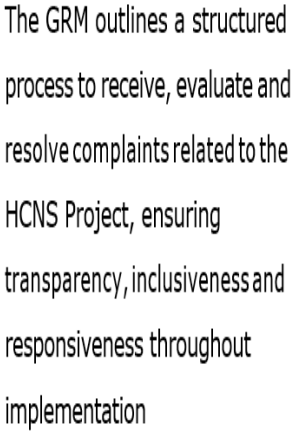
Attendance Register

No.	Name	Organization
1	[redacted]	Kato Village Council
2	[redacted]	Not Stated
3	[redacted]	Not Stated
4	[redacted]	Ministry of Health
5	[redacted]	Ministry of Health
6	[redacted]	Ministry of Health
7	[redacted]	Ministry of Health
8	[redacted]	Ministry of Health
9	[redacted]	GESS
10	[redacted]	GESS
11	[redacted]	GESS
12	[redacted]	PCI-Sinopharmintl Consortium
13	[redacted]	Not Stated
14	[redacted]	Councilor
15	[redacted]	Not Stated
16	[redacted]	Ministry of Health
17	[redacted]	Not Stated
18	[redacted]	Not Stated
19	[redacted]	Not Stated
20	[redacted]	Not Stated
21	[redacted]	Not Stated
22	[redacted]	Not Stated
23	[redacted]	Not Stated
24	[redacted]	Not Stated
25	[redacted]	Not Stated
26	[redacted]	Business Owner
27	[redacted]	Not Stated
28	[redacted]	Guyana Police Force
29	[redacted]	Not Stated
30	[redacted]	Not Stated
31	[redacted]	Not Stated
32	[redacted]	Not Stated
33	[redacted]	Not Stated
34	[redacted]	Not Stated
35	[redacted]	Not Stated
36	[redacted]	Not Stated
37	[redacted]	Not Stated
38	[redacted]	Not Stated
39	[redacted]	Not Stated
40	[redacted]	Not Stated

Presentations







Objectives of the GRM

- Provide accessible mechanisms for stakeholders to raise concerns
- Resolve grievances fairly, efficiently, and transparently.
- Prevent and address adverse impacts on communities
- Strengthen accountability in project implementation

Scope and Principles

Applies to all project activities and stakeholders at all sites: Lethem, Kato, Moruca, and Kamarang.

Anchored in principles of confidentiality, equity, and responsiveness.

Promotes rights to be heard without retaliation or prejudice.

What types of Grievances can be reported?

- Disruptions from construction and operations
- Environmental and social impacts
- Community health and safety issues
- Labour-related complaints
- Workers' behaviour and misconduct
- Accessibility of project benefits and services

GRM Structure and Responsibilities

- PIU's E&S Specialist:
  - ✓ Serves as the focal point to receive and record complaints
  - ✓ Supports resolution and oversight
  - ✓ Monitor, escalate and ensure compliance
- Ministry of Health:
  - ✓ Address any systemic issues

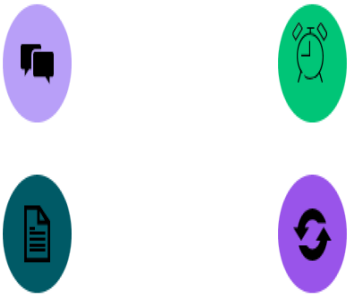
GRM Submission Channels

https://health.gov.gy/wp-content/uploads/2025/06/HCNS-PROJECT-GRIEVANCE-REPORT-FORM-test.pdf

Processing Timeline

01	02	03	04
Acknowledge complaint within 2 working days.	Resolve within 14 working days (simple cases).	Escalate unresolved issues to higher levels.	Notify the complainant of the outcome and rights to appeal.

Monitoring and Evaluation



Confidentiality and Non-Retaliation

NOTE: [PHOTOS OF THE CONSULTATIONS ARE REDACTED. FOR INTERNAL PURPOSES ONLY.]

ANNEX ONE – OIL SPILL REPORT TEMPLATE

PROJECT: Kato Regional Hospital
EMPLOYER: Ministry of Health
CONSULTANT: JV JFAMPC-CBA.

Oil Spill Report

Report ID:

Date:

Time:

Location:

Duration of the oil/fuel spill	
Identity and quantity of the oil/fuel	
Circumstances of the spill (How did the spill occur)	
Containment and clean-up methods	
Disposal method of oil spill	
Adverse effect observed.	
How did the emergency occur? (Include the use of equipment and personnel)	
What tasks were being performed?	
Were there adequate safe working procedures and was it followed?	
Was the risk known? If so, why wasn't it controlled? If not, why not?	
Were the people involved competent and suitable?	
Did the workplace layout influence the adverse event?	
What injuries or ill effects were caused?	
If there was an injury, how did it occur and what caused it?	
Was the safety equipment sufficient?	
Did other conditions influence the adverse event?	
What were the immediate, underlying and root causes?	

ANNEX TWO – EMERGENCY REPORT TEMPLATE

PROJECT: Kato Region Hospital

EMPLOYER: Ministry of Health

CONSULTANT: JV JFAMPC-CBA.

Emergency Report

Report ID:

The purpose of this report is to record all emergencies. The term accident for this report be categorized as the need for first aid, medical aid, lost time, fatality, or oil spill. The term incident for this report will be categorized as near-miss, property damage with no injuries but required preventative actions.

Report completed by: Date of Report:

_____

Persons involved:

_____

Date of emergency: Time: Location:

Type of Emergency:

Medical Emergency Fire Emergency _ Severe weather conditions

Hazardous material leaks

Brief Description of

_____

emergency:

_____

_____

_____

_____

Any unusual working conditions:

_____

_____

_____

_____

Overview of Emergency

How did the emergency occur? (Include the use of equipment and personnel)	
What tasks were being performed?	
Were there adequate safe working procedures and was it followed?	
Was the risk known? If so, why wasn't it controlled? If not, why not?	
Were the people involved competent and suitable?	
Did the workplace layout influence the adverse event?	
Did the workplace layout influence the adverse event?	
What injuries or ill effects were caused?	
If there was an injury, how did it occur and what caused it?	
Was the safety equipment sufficient?	
Did other conditions influence the adverse event?	
What were the immediate, underlying and root causes?	

Risk, Control Measures, Analysis of Emergency

What risk control measures are needed/recommended?	1. 2. 3. 4. 5.
Have similar emergency happened before?	

Which Risk control measures should be implemented in the long and short term?		
Control Measure	Completion Date	Person Responsible
1		
2		
3		
What are the findings from the analysis? (Demonstrate the 5 why's analysis)		

Members of the investigation team

Name	Position	Signature

ANNEX THREE – EPA PERMIT

To be included upon receipt of Permit from the EPA.

REFERNCES

The following documents were referenced when preparing this plan:

- IDB's Environmental and Social Policy Framework (September 2020);
- Project Specific Environmental and Social Framework (KATO)
- Environmental & Social Management Requirements Ver-1.3/2021 (CENTRAL HOUSING & PLANNING AUTHORITY).
- Guyana Environmental Protection Act 1996. Part IV Environmental Impact Assessment, Part V Prevention and control of pollution, Environmental Protection Regulations.
- Contract -Design and Build Kato Hospital in Region No. 8
- Environmental Protection Water Quality Regulations 2000

- Environmental Protection Noise Management Regulations 2000
- Environmental Protection Air Quality Regulations 2000
- GY-L1081 ESAESMP WORKERS CAMP, East Bank Demerara Road Improvement (Good Success to Timehri)